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Colorado Department of Human Services and Colorado Department of Health Care Policy & Financing

The Collection and Analysis of Data Relating to County Department Costs and Performance Associated with Administering Public Benefit Assistance Programs

August 18, 2017

Table of Contents

Key Terminology

To clarify the terminology, the table below provides definitions for the terms used throughout the document.

Term	Description
Activity Dictionary (AD)	A list of defined tasks which comprise public assistance program administration. The goal of the Activity Dictionary was to provide a common understanding of possible activities and provide a mutually exclusive, collectively exhaustive taxonomy.
Activity Survey	The primary data gathering tool utilized to collect processing times for the defined list of activities in the AD.
Additional Activities	All tasks performed by county staff outside of case-processing activities. Additional activities include customer service, management activities, back-office operations, data analysis, help desk support, training/recruiting, among other supporting tasks.
Administration for Children and Families (ACF)	A division of the United States Department of Health and Human Services (HHS).
Aid to the Needy and Disabled (AND)	Provides financial assistance to people who are not receiving Supplemental Security Income (SSI) and provides Medicaid (medical insurance) benefits to people who are receiving SSI.
American Public Human Services Association (APHSA)	A bipartisan, nonprofit membership organization representing state and local human service agencies through their top-level leadership.
Application Initiation (AI)	A stage of case-processing within CBMS that allows for the collection of initial application information such as public assistance needed, as well as client information, such as name, DOB, address, and other identification information.
Business Process Reengineering (BPR)	The analysis and redesign of workflows within and between enterprises in order to optimize end-to-end processes and automate non-value-added tasks.
Case and Procedural Error Rate (CAPER)	A measure of negative actions taken on a case. It is calculated by reviewing a sample of cases state-wide throughout the year, evaluating how many of those cases were incorrectly processed, and dividing it by the total number of cases reviewed
Child Care Automated Tracking System (CHATS)	The automated system used by the state and its county partners to manage and monitor the Colorado Child Care Assistance Program (CCCAP), which provides Child Care eligibility services to the eligible citizens.
Child Health Plan Plus (CHP+)	Offers comprehensive health care benefits to two populations: uninsured Colorado children ages 18 and younger and pregnant women whose families earn too much to qualify for Health First Colorado but cannot afford private health insurance.
Client Correspondence	Includes any communication between client and program staff, whether by phone, email, mail, or in person.
Colorado Benefits Management System (CBMS)	An integrated on-line, real-time automated system with several subsystems to support eligibility and benefits determination, client correspondence, management reports, interfaces and case management for public assistance programs.
Colorado Department of Human Services (CDHS)	The principal department of the Colorado state government that operates the State's social services. It has its headquarters in Denver.
Colorado Works – Temporary Assistance for Needy Families (TANF)	Provides financial and other assistance to needy families to achieve self-sufficiency. States receive grants to design and operate programs for TANF.
Cost of Living Adjustments (COLA)	Social Security's general benefit increases are based on increases in the cost of living, as measured by the Consumer Price Index.

Term	Description
County Financial Management System (CFMS)	A software system where counties enter financial data for state and federal reimbursement.
Electronic Document Management System (EDMS)	A software system for organizing and storing documentation submitted by clients.
Eligibility Determination & Benefit Calculation (EDBC)	A step within CBMS that allows for determination of eligibility based on household and income data provided.
Enhanced / Non-Enhanced	The two funding streams available to provide the support for the Medicaid programs as defined by Center of Medicaid and Medicare Services (CMS).
Food Nutrition Service (FNS)	A federal agency of the United States Department of Agriculture (USDA), responsible for administering the nation's domestic nutrition assistance programs.
Health Care Policy and Financing (HCPF)	The principal department of the Colorado state government responsible for administering Health First Colorado (Colorado's Medicaid Program), Children's Basic Health Plan and other public care for Coloradans who qualify including supervising County Departments, eligibility and case maintenance activities.
Income Eligibility Verification System (IEVS)	A computerized information system which performs data matches against several agency data bases to verify certain types of income and/or property.
Interactive Interview (II)	A stage of case-processing within CBMS that allows for the collection of an in-depth client data, such as income, expenses, resources, and the relevant verification documents, usually by means of an interview.
Long-Term Care Services (LTC)	Includes nursing facility care as part of the standard benefit package, the Program of All Inclusive Care for the Elderly (PACE) and Home and Community Based Services (HCBS) provided under waivers granted by the Federal government.
Medical Assistance (MA)	Also known as Health First Colorado, covers basic physical, behavioral and dental health benefits for those who qualify. It covers the entire Medicaid program including Long-Term Care Services, Medicare Savings Program, Low-Income Subsidy Eligibility, and other public health care programs.
New Application	An application submitted by a client requesting public benefit assistance for a program they are currently not receiving.
Old Age Pension (OAP)	Provides financial assistance to elderly, low-income Colorado residents to help them attain a minimum monthly income.
Payment Error Rate (PER)	A measure that tracks improper under and overpayments of eligibility benefits to Colorado recipients. The error rate is calculated by reviewing a sample of cases state-wide throughout the year, adding up each dollar of over or under payments if applicable, and dividing it by the total payment dollar amount.
Pilot Counties	The nine primary counties that participated in the in-depth analysis based on survey results and county visits and interviews. These are Alamosa, Arapahoe, Denver, Douglas, Eagle, El Paso, Huerfano, Mesa, and Sedgwick.
Policy Advisory Committee (PAC)	Develops and addresses human services policy issues on a statewide basis to improve the process of delivery of services for children, families, and adults across the state of Colorado.
Post-Authorization	Tasks related to gathering of additional client data and follow-up correspondence after the authorization of a case.
Program Eligibility and Application Kit (PEAK)	A web-based application for multiple public assistance programs that provides a more streamlined application experience, while increasing the functionality within the system to accommodate reporting changes, renewing benefits, submitting documents electronically, accessing correspondence, paying premiums or annual fees, and potentially receiving a real time eligibility determination for Health First Colorado.

Term	Description
Public Assistance Reporting Information System (PARIS)	A data matching service matching recipients of public assistance to check if they receive duplicate benefits in two or more states. PARIS matches help identify improper payments and minimize fraud and abuse.
Redetermination / Recertification / Reassessment (RRR)	The recertification of eligibility for an enrolled participant in one or more public assistance programs.
Staff Development Center (SDC)	A state-provided training unit that offers a wide array of training opportunities for staff working with families accessing Medical, Food and Cash Assistance.
Supplemental Nutrition Assistance Program (SNAP)	Provides food-purchasing assistance for low- and no-income people living in Colorado. It is a federal aid program, administered by the U.S. Department of Agriculture, under the Food and Nutrition Service (FNS), though benefits are distributed by each U.S. state's Division of Social Services or Children and Family Services.
Time-Driven Activity Based Costing (TD/ABC) Model	A model that identifies the time required to do a unit of work and compare that level of effort to the associated cost. This is different from typical budget exercises which allocate an amount of funding to a program prior to delivering the services under that program.
TRAILS	Colorado's statewide automatic child welfare information system.
Verification Documents	Paperwork required by current or pending participants to determine eligibility for one or more public assistance programs.
Work Management System (WMS)	A software program employed by some counties in order to electronically track county activities, processing times, and allocation of work and resources.

1. Executive Summary

1.1. Project Purpose

As outlined in Senate Bill 16-190, the purpose of the project is to collect, analyze, and assess data relating to County Departments of Human/Social Services costs and performance associated with administering seven public assistance benefit programs for the Colorado Department of Human Services (CDHS) and Colorado Department of Health Care Policy and Financing (HCPF). These programs are the Supplemental Nutrition Assistance Program (SNAP), Medical Assistance (Health First Colorado, Colorado's Medicaid Program), Colorado Works – Temporary Assistance for Needy Families (TANF), Children's Basic Health Plan (Child Health Plan Plus or CHP+), Aid to the Needy and Disabled (AND), Old Age Pension (OAP), and Long-Term Care Services (LTC).

In particular, the analysis focuses on helping the State and its counties achieve resource efficiency, improve program quality and performance, and document:

1) County status in meeting performance measures for administering public assistance programs
2) An inventory of activities that counties perform to administer benefits
3) Administrative work not yet completed
4) The amount of time spent by the counties on various activities
5) County costs associated with those activities
6) Cost variances between counties and programs
7) Program cost and performance relationships
8) Total funding to meet the required workload
9) Business process improvements
10) Options for cost-allocation models

The analysis of these areas helped identify opportunities for resource modifications and overall program quality and performance improvement. Given the time and resources allotted, this study analyzed the ten areas listed above for the nine counties and gathered survey data for all 64 counties. It should be noted that this report varies from previously completed studies, such as the 2007 Workload Study and the Child Welfare Study in that it doesn't assess the required FTE counts.

1.2. Approach

The project had four phases – planning and scope, data gathering, analysis, and recommendations. Each phase delivered specific outcomes that collectively served to inform project recommendations.

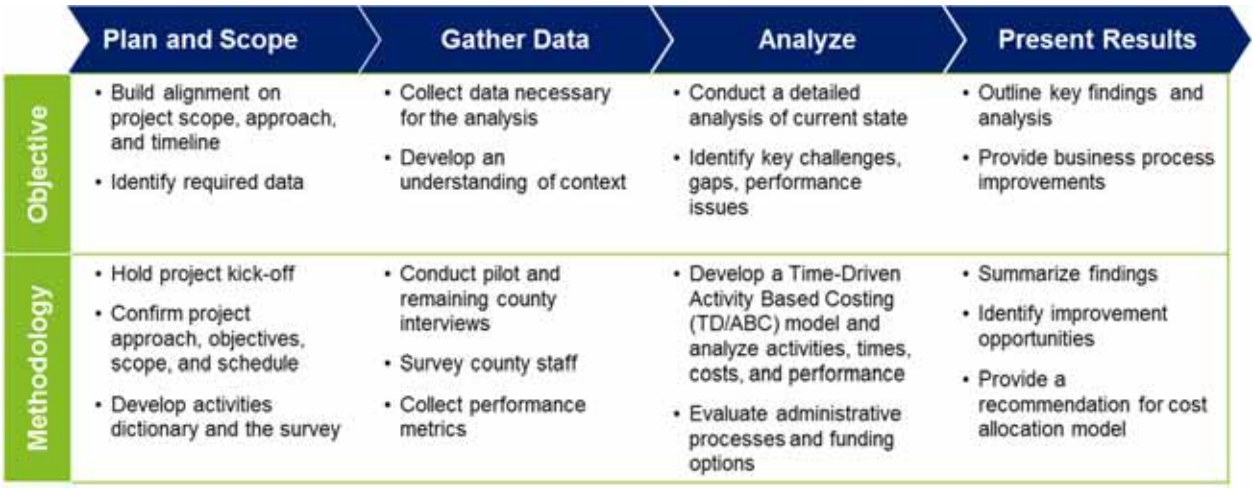

Figure 1 - Four Phases of the Project

During the four project phases, we met with State and County leadership to align on project goals, approach, milestones, and deliverables. In the first phase, we held a kick-off meeting with State and County leadership to explain our approach, clarify the scope, discuss the timeline, and agree on the course of action. We also conducted preliminary research, which included pilot visits to three counties (large, medium, and small) to learn more about different county structures, business processes, activities, program challenges, and leading practices. In addition, we created an Activity Dictionary and designed an Activity Survey in preparation for data gathering.

In phase two, we administered and collected the survey, conducted county interviews, gathered cost data, and collected supplemental information from the counties and the State. This phase focused on nine “pilot” counties specified in the RFP for this study: Alamosa, Arapahoe, Denver, Douglas, El Paso, Eagle, Sedgwick, Huerfano, and Mesa. The team visited these counties to conduct on-site observations and interviews. The collection of county cost data was based on the data available in the Colorado Financial Management System (CFMS), where counties enter financial data for state and federal reimbursement. In addition, the team attempted to collect any county costs that were not reported in CFMS, but none were reported by the counties. To assess caseload volume, the team relied on the data available in the Colorado Benefits Management System (CBMS) for the 2016 calendar year. These data inputs provided the necessary information to support the analysis, however, the main analysis of county activities, times, and costs was based primarily on the survey responses submitted by county staff. It should be noted that the study was concerned with activity times based on survey responses and does not account for county-specific processes such as generalist vs specialist. The study analyzes the time spent on case processing and

additional activities as reported in the survey, regardless of individual county processes and what unit conducts the activity. Below is a summary of survey participation:

- The survey participation rate across the nine counties was 83.2%. Large counties had a participation rate of approximately 83%, medium counties 89%, and small counties 100%.
- Of the 2,102 study participants, we received 1,749 survey responses, including 17 entries containing outlier data (less than 1%) that were removed from the analysis. Ultimately, we analyzed 1,732 survey responses.
- Due to county sizes and staff numbers, out of 1,749 survey responses, 91% of responses came from large counties.
- Eligibility staff were the largest response group, averaging between 55-62% of county respondents.
- Eligibility workers with 1-2 years of experience were the largest response group, followed by eligibility workers with more than 10 years of experience.

The results of the online survey were extrapolated to analyze how staff spend their time across a number of activities for calendar year 2016 and were used as the primary input for the cost allocation model and analysis. Survey responses are based on county staff's personal account of how they spent their day versus CBMS records, the analysis and findings are considered subjective. The study was not able to validate the findings with CBMS data, because CBMS does not currently have the capability to record time spent on each phase of case-processing. As such, there was no mechanism to evaluate activity data objectively.

During the third project phase, we conducted a survey assessment of county activities, analyzed county performance, and used a Time-Driven/Activity-Based Costing (TD/ABC) to analyze county costs and funding allocations. The TD/ABC model uses the costs reported by the nine counties for calendar year 2016 from CFMS and time spent collected from the survey tool to measure cost by activity and by program. The survey results were used to allocate costs to activities. For example, if a staff member spends 50% of their time on new applications, then 50% of their salary is allocated to the New Application Processing activity in the model. The model also used the number of activities and programs reported to allocate costs from activities to programs. For example, if that same staff member was processing a Medical Assistance application, the cost of processing the new application is allocated 100% to the Medical Assistance program. If the new application was for both SNAP and Medical Assistance, the costs are split between the two programs. The example below illustrates how resources are connected to activities and programs.

Resource	Resource Driver	Activity	Activity Driver	Program(s)
Eligibility Worker $10,000	Time recorded on the survey by activity and program (i.e., 50% of time is spent processing new applications)	New Application Processing $10,000 * 50% = $5,000	Split evenly between SNAP and Medical Assistance if eligibility worker recorded both on that survey entry	SNAP = $5,000 * 50% = $2,500 Medical Assistance = $5,000 * 50% = $2,500

Figure 2 – Sample Model Drivers

The analysis of the nine counties was further supplemented with the survey data collected for the remaining 55 counties. A detailed description of the approach is included in Section 3 of this report.

Based on survey responses and county observations, the study evaluated county activities, time, cost, and performance data, which allowed us to develop recommendations delivered in the final project phase. A summary of project findings and recommendations is provided below.

1.3. Findings

By analyzing survey data, county interviews, cost information, performance metrics, and business processes, the team identified a number of findings summarized in four sections: *SB 16-190 Programs Analysis*, *The Fifty-Five County Analysis*, *Analysis of Improved Human Services Delivery Process*, and *Analysis of Options for Cost Allocation*. These findings served as the basis for our recommendations summarized in this section. Detailed findings for each of these sections appear in Sections 4, 5, 6, and 7 respectively. It should be noted that Deloitte did not conduct an analysis of inflight and/or upcoming projects conducted by the State. As such, the State may already be aware of some of these findings and is currently implementing or planning to implement some of the recommendations suggested in this report.

1.3.1 SB 16-190 Programs Analysis Results

Outlined below is a summary of findings from the analysis of county performance measures, county activities and times, administrative work delays, county costs per activity, and program cost variances and performance relationships. We provide a detailed analysis of these findings in Section 4.

- **Performance Measures**

  We based the findings below on county performance data provided by the State, which was gathered from the Colorado Benefits Management System (CBMS). PER, CAPER, and PAR statistics were provided by Public Assistance Quality Assurance (PAQA) staff at the CDHS' Division of Quality Assurance and Quality Improvement.

- The State of Colorado met the 95% timeliness target in 2016 for processing of new applications for the following programs: Adult Financial, Colorado Works, Food Assistance, and all the HCPF programs (Medical Assistance, CHP+, LTC and OAP). The State missed the target for Expedited Food Assistance in January, February, March, and June of 2016, although the performance for these months did not drop below 92.4%.
- The State of Colorado met the 95% Redetermination, Recertification, Reassessment (RRR) timeliness requirement in the 2016 calendar year for Colorado Works, Food Assistance, and Medical Assistance, but just missed the threshold for Adult Financial with an annual average of 94.7%.
- The county average for Food Assistance Payment Error Rate (PER) was 3.51%, 0.51% above the 3% State goal. The top three errors in reviewed Food Assistance cases include: miscalculation of wages and salaries, incorrect shelter deduction, and incorrect household composition.
- The Payment Accuracy Rate (PAR) for Adult Financial (AND and OAP) was 92.88%, 4.12% short of the 97% goal. The PAR for Colorado Works was 91.46% based on 28 of 64 counties, falling short 5.54% of the 97% target.
- The Case and Procedural Error Rate (CAPER) for Food Assistance was 24.33%, missing the C-Stat goal of 21% by 3.33%. However, this rate is consistent with national averages.
- The Case Accuracy Rate (CAR) for Adult Financial was 21.99% and Colorado Works was 45.66%, both falling short of the 75% target. However, the measures were tracked only on a pass / fail system during FY16, reflected in the numbers stated above. A more accurate tracking of the measure is currently being implemented for FY17.

- **County Activities and Times**

  Survey results from the nine counties provided the data used in the analysis of county activities and times below:

  - Assessment of county activities and times revealed that approximately 40% of staff time is spent on direct case processing. These activities include Application Initiation (AI), Interactive Interview (II), Eligibility Determination & Benefit Calculation (EDBC), Authorization, and Post-Authorization (PA).
  - Additional activities take 60% of staff time and include tasks that support the seven programs in the study, such as customer service, management activities, internal communication, quality assurance, training, and back office functions, like Finance & Accounting, Human Resources, Information Technology, and Legal Services.

- Processing times (in minutes) for new applications, RRR, and case changes varied across county sizes and are displayed in the table below.

Case Type	Small	Medium	Large
New Application	64	54	50
RRR	21*	44	44
Case Changes	38	26	24

*It should be noted that only four RRR cases were processed in small counties, representing a very small sample

Figure 3 - Average Case Processing Time by County Size and Case Type

- Individual county comparison showed differences in case processing times for new applications, RRR, and case changes, as well as cases involving different programs. The details of these findings are explained further in Section 4.
- Many client cases included multiple programs, which made up 57% of all cases worked. The most prevalent multiple-programs cases were for MA & SNAP and MA, SNAP, & TANF.
- The most common additional activity was customer service, which took up 24% of total staff time.

In addition to the analysis of the nine county survey data, Deloitte conducted a similar assessment of the remaining 55 counties. The results of this survey helped to compare and further inform the findings analyzed in the nine county survey data and observations made during county visits. Detailed information on the similarities and differences in the results of the nine and the 55 county surveys is provided in Section 5.

- **Administrative Work Delays**

  These findings are based on the survey of County Champions and staff interviews conducted during our nine county visits.

  - The most common administrative work delays were for processing of state and federal reports, such as the Public Assistance Reporting Information System (PARIS), Income Eligibility and Verification System (IEVS) Discrepancies, Cost of Living Adjustment (COLA) Exceptions, document verifications, and client correspondence.
  - Other delays included work required for documentation verifications, handling of exceptions to client documentation, processing changes to case files, addressing returned mail, and providing client correspondence.
  - The most common reported reasons for the delay were insufficient staff time to complete the tasks due to the time dedicated to case processing, large caseload volumes, high staff turnover, and long training periods.

- **County Costs Per Activity and Cost Variances**
  - While SNAP, MA, AND, LTC, and CHP+ are funded through county administration dollars, TANF and OAP-Cash are funded through an appropriation via a block grant. Cost model results have shown that the nine counties spent a total of $60,899,423 in county administration and appropriated costs for the seven programs in the study. Of this amount, TANF costs were $3,545,480 for the nine counties based on cost model results. Arapahoe, Denver, and El Paso are responsible for 87% of the total cost.
  - Personnel expenses make up the largest portion of county costs with an average of 86% for the nine counties, followed by services contributing 9% to total costs and facilities contributing 5%. Personnel expenses include salary and fringe expenses for county workers who directly or indirectly provide services to eligible clients and are a necessary component of the overall program administration.
  - Smaller counties spend a smaller percentage of their time focusing on primary activities, and a larger percentage of their resources on secondary activities such as customer service, help desk, human resources, and IT than large or medium counties. The most resource-intensive secondary activity is customer service.
  - The model shows that the total cost to process PEAK applications is less than the total cost to process non-PEAK applications due lower labor costs associated with real-time eligibility processing of some MA cases. However, for those cases that do not pass real-time eligibility and require additional effort and time by a technician, the cost per case for PEAK is higher than the cost per case for non-PEAK.
  - MA and SNAP are the most resource-intensive programs overall. However, TANF, LTC, AND, and OAP-Cash also make up a significant portion of a county's costs. The table below shows the breakdown of costs by county based on the results of this study for each of the seven programs in the study.

County	AND	CHP+	LTC	MA	OAP - Cash	SNAP	TANF	Grand Total*
ALAMOSA	$15,035	$6,990	$29,911	$426,729	$17,163	$385,490	$34,451	**$915,770**
ARAPAHOE	$274,390	$152,236	$558,987	$5,233,017	$248,815	$3,394,171	$637,455	**$10,499,072**
DENVER	$950,174	$67,296	$1,078,800	$12,474,467	$557,475	$13,371,592	$2,208,439	**$30,708,244**
DOUGLAS	$42,714	$32,224	$112,865	$921,566	$39,114	$477,250	$71,010	**$1,696,743**
EAGLE	$8,057	$49,623	$13,054	$635,553	$8,410	$186,144	$21,959	**$922,800**
EL PASO	$241,242	$116,666	$505,971	$6,220,836	$179,924	$4,381,907	$550,725	**$12,197,271**
HUERFANO	$9,153	$505	$7,985	$140,054	$6,807	$109,420	$21,440	**$295,364**

County	AND	CHP+	LTC	MA	OAP - Cash	SNAP	TANF	Grand Total*
MESA	$83,481	$39,273	$195,859	$1,644,798	$42,944	$1,356,640	$184,149	**$3,547,143**
SEDGWICK	$3,180	$704	$6,306	$56,569	$4,886	$35,134	$10,239	**$117,017**
Grand Total*	**$1,627,426**	**$465,518**	**$2,509,737**	**$27,753,590**	**$1,105,537**	**$23,697,747**	**$3,739,868**	**$60,899,423**

*Totals may not be exact due to rounding

Figure 4 – Model Results of Program Costs by County

- **Cost and Performance Relationships**
  - The cost per case varies widely across counties. Variances can be due to the cost of living per county; business processes and practices in the county; staffing patterns; investments in technology; and the variation in caseload, case characteristics, and case complexity.
  - The table below shows the cost per case per month for each of the seven programs and the nine counties in this study, based on cost model analysis of the CBMS volume of cases in 2016 and CFMS reported costs.
  - Additional detail around cost per case for each of the surveyed activities performed by staff in the nine counties is provided in Appendix R. Further breakdown of case processing time, cost per case, and county performance for each of the nine counties is shown in Appendix S. Based on the data in Appendix S, the study cannot conclude if there's a clear relationship/correlation between processing time, cost per case, and performance metrics.

Cost per Case (Cost Model Results)	AND	CHP+	LTC	MA	OAP - Cash	SNAP	TANF
ALAMOSA	$9.71	$5.86	$6.34	$9.03	$5.52	$15.10	$17.19
ARAPAHOE	$30.53	$5.06	$7.55	$6.44	$6.09	$13.50	$33.58
DENVER	$25.46	$2.37	$11.27	$9.65	$6.62	$27.79	$46.06
DOUGLAS	$39.55	$4.28	$7.77	$6.17	$8.40	$18.04	$69.62
EAGLE	$47.96	$11.47	$14.72	$14.57	$11.49	$26.29	$52.28
EL PASO	$14.48	$4.86	$6.66	$5.59	$6.36	$11.55	$20.42
HUERFANO	$10.74	$3.30	$3.23	$7.10	$4.17	$9.40	$21.79
MESA	$16.72	$4.76	$6.51	$6.12	$4.32	$12.65	$22.18
SEDGWICK	$24.09	$7.91	$11.30	$14.32	$25.45	$20.19	$65.64
Average*	**$22.69**	**$4.47**	**$8.40**	**$7.40**	**$6.37**	**$18.35**	**$35.02**

*Average is a weighted average based on the county caseload

Figure 5 - CY 2016 Cost per Case per Month by Program and County from Cost Model Results

1.3.2 Analysis of Improved Human Services Delivery Process Model

Outlined below are findings gathered through interviews, staff observations, and qualitative survey responses from the nine counties. A summary of key findings around People, Process, Technology, and Common Leading Practices are provided below, with an extensive analysis of these topics discussed in Section 6.

- **People**
    - Recruitment and training are crucial for efficient and effective administration of public benefit assistance programs and opportunities exist to improve Staff Development Center (SDC) and county-provided trainings.
    - Staff retention is an issue in some counties due to high stress, large workloads, and alternative professional opportunities, particularly in larger counties. Staff retention is less of an issue in smaller counties primarily due to staff being more rooted in their communities and remaining there for longer periods of time as well as fewer job alternatives in smaller counties.
- **Process**
    - Counties with existing workload management systems demonstrated more efficient processes and better tracking and distribution of tasks.
    - Manual and paper-based processes contributed to delays, duplication, longer processing times, as well as potential client confidentiality risks.
    - Lack of clear intercounty communication processes limits knowledge sharing and can result in processing delays of intercounty transfers.
    - State to county communication, including policy updates and reporting requests, is spread across several channels, such as website, portal, and library and does not follow a predictable schedule.
- **Technology**
    - While PEAK provides greater access to benefits for more Coloradans, client- entered information in PEAK can result in duplicated and incorrect records.
    - While clients have the flexibility of updating information in PEAK multiple times, every time a change is made in PEAK, a new task is created for an eligibility worker to resolve, which often leads to lengthy and redundant case rework for staff.
    - Lack of system automation within Colorado Benefits Management System (CBMS) as well as connectivity issues and outages result in delays and workarounds.

- Limited system interoperability leads to processing inefficiencies.

- **Common Leading Practices**
  - Workload management systems, such as those employed by Denver, Boulder, and Arapahoe, help increase workflow efficiencies, improve activity tracking, and contribute to better analysis of internal practices.
  - County-provided training supplements state-provided training and is aimed at delivering a more customized approach to learning systems, processes, and policies based on individual county organizational structure and operations. Counties who vet their training materials with the State enable accurate transfer of knowledge on county processes and State policies in accordance with State and Federal regulations.

    Note: HCPF provides financial incentives to counties that have their trainings materials vetted and approved by the State.
  - Good team culture is critical in an organization that relies heavily on human interactions. Several counties have developed structures to encourage open communication and supervisor support.

1.3.3 Analysis of Options for Cost Allocation Model

Colorado currently allocates county administration costs to counties using workload, which is updated from the eligibility system of record each year, and level of effort as captured in a Workload Study conducted in 2007. However, technology, policy, and process changes to the eligibility landscape since then have meant that the current allocation method may not adequately fund county operations. In addition, regardless of the allocation method, the current funding ceiling itself does not appear adequate to fully fund county operations.

- **Benchmarking Purpose and Method**
  - To conduct the analysis, a number of dimensions of the current cost allocation model were documented and analyzed: food and medical program cost split, medical enhanced and non-enhanced split, state and county share split, allocation to counties, year-end redistribution, incentives, cost of living, minimum base allocation, and the "open the doors" base allocation.
  - In state fiscal year 2016, 73% of counties overspent their CDHS county administration allocation, and 44% overspent their HCPF allocation. Medium counties are less likely to overspend.

- **Findings from Other States**
  - According to a 2016 USDA study, state-supervised, county-administered human services programs may be more expensive to administer per case

for SNAP than state-administered programs. Additional analysis may be necessary to assess differences in individual state funding structures that may impact the cost of administering SNAP.

- Virginia uses a state-supervised, county-administered model, but differs in several key ways, such as using a base allocation, requiring more funding from counties, and not permitting year-end funding redistribution.
- Minnesota does not provide a state allocation, but centralizes many services, such as case management, a call center, and program integrity.

- **Benchmarks with the American Public Human Services Association (APHSA)**
  - APHSA provides a maturity model that can be used to measure financial processes in the provision of human services. This maturity model is based on APHSA's business model for horizontal integration of health and human services. It describes a human service organization's journey toward ever-expanding horizons of outcomes that drive organization and technology innovations for better service delivery.
  - Colorado currently follows a "regulative" funding model according to APHSA's business model for horizontal integration of health and human services. Detailed information of the APHSA maturity model is discussed in Section 7.3.
- **Allocation of Costs by Program**
  - The comparison of cost model results and SFY 16 allocation and TANF appropriation indicates that based on current business process, the nine counties should receive an increase of $5,521,050 (equivalent to 10%) to meet their workload requirements. However, analysis of the cost model results and reported CFMS spending for the seven programs, shows that the nine counties are spending $6,298,896 (equivalent to 10.3%) more than what the cost model indicates they should.
  - While the total gap between allocated and reported costs for the seven programs in the study is $11,819,946, this gap could be closed by increasing State allocation by $5,521,050 and at the same time reducing county spending by $6,298,896.
  - Analysis of strictly county administration dollars (i.e., excluding TANF) shows that while SFY 16 allocation for CDHS and HCPF programs was $48,943,501, counties spent $60,763,448 in CFMS reported costs. Cost model results for CDHS and HCPF programs, however, shows that the nine counties require $57,159,555 in county administration dollars.
  - This breakdown indicates that in order to administer CDHS and HCPF programs only, the nine counties should be allocated $8,216,054 more and at the same time reduce their spending by $3,603,892.

	Cost Model Results			CY16 CFMS Reported Costs			SFY 16 Allocation		
County	**CDHS**	**HCPF**	**TANF**	**CDHS**	**HCPF**	**TANF**	**CDHS***	**HCPF**	**TANF****
ALAMOSA	$417,688	$463,630	$34,451	$474,471	$456,427	$82,888	$460,502	$445,180	$82,888
ARAPAHOE	$3,917,376	$5,944,240	$637,455	$5,677,635	$4,407,908	$961,168	$5,763,715	$5,218,059	$961,168
DENVER	$14,879,241	$13,620,564	$2,208,439	$17,619,243	$12,209,132	$2,815,310	$9,549,397	$8,519,881	$2,815,310
DOUGLAS	$559,078	$1,066,655	$71,010	$626,731	$845,956	$315,901	$817,755	$775,798	$315,901
EAGLE	$202,611	$698,231	$21,959	$544,794	$468,652	$155,609	$293,929	$303,685	$155,609
EL PASO	$4,803,073	$6,843,473	$550,725	$7,987,516	$5,194,929	$938,613	$6,703,435	$5,972,845	$938,613
HUERFANO	$125,379	$148,544	$21,440	$170,478	$165,369	$49,370	$174,685	$164,873	$49,370
MESA	$1,483,064	$1,879,930	$184,149	$2,329,152	$1,461,759	$1,101,211	$1,935,505	$1,739,767	$1,101,211
SEDGWICK	$43,199	$63,578	$10,239	$57,904	$65,391	$14,802	$54,941	$49,549	$14,802
Total	**$26,430,710**	**$30,728,845**	**$3,739,868**	**$35,487,925**	**$25,275,523**	**$6,434,872**	**$25,753,864**	**$23,189,637**	**$6,434,872**
Percentages	**46.24%**	**53.76%**		**58.40%**	**41.60%**		**52.62%**	**47.38%**	
CDHS and HCPF Total	**$57,159,555**			**$60,763,447**			**$48,943,501**		
Grand Total	**$60,899,423**			**$67,198,319**			**$55,378,373**		

* SFY 16 CDHS Allocation includes OAP-Cash Reported Costs (through CFMS)

**TANF costs are SFY16 Reported Costs (through CFMS) as this is an appropriation and not an allocation

Figure 6 - Comparison of Cost Model Results, CFMS Reported Costs, and SFY 16 Allocation by Funding Streams for Nine Pilot Counties

- Colorado counties on average spend more resources providing HCPF services, though they receive a smaller percentage of HCPF funds than CDHS funds
- According to cost model results, there should be close to a 50/50 split between CDHS and HCPF program costs. Current allocated costs show a 60/40 split and CFMS reported costs show a 62/38 split between CDHS and HCPF.
- The table below shows that CDHS costs are over-reported in CFMS and HCPF costs are under-reported. HCPF programs for the nine counties require $5,453,322 in additional funding, CDHS programs should spend $9,057,214 less in county administration costs for the nine counties, and TANF overspends its appropriated funds by $2,695,004. In HCPF, MA includes OAP costs related to medical assistance.

Program	Cost Model Results	CFMS Reported Costs	Delta to CFMS
CDHS Admin Allocation (AND, OAP-Cash, and SNAP)	$26,430,710	$35,487,925	($9,057,214)
HCPF Admin Allocation (MA, CHP+, and LTC)	$30,728,845	$25,275,523	$5,453,322
Total Admin Allocation	**$57,159,555**	**$60,763,447**	**($3,603,893)**
TANF	$3,739,868	$6,434,872	($2,695,004)
Grand Total	**$60,899,423**	**$67,198,319**	**($6,298,896)**

Figure 7 - Comparison of Cost Model Results and CFMS Reported Costs by Funding Stream for Nine Pilot Counties for Calendar Year 2016

- If SNAP spending is decreased and MA spending is increased per the cost model results, the nine counties would save a total of $1,321,417.96 and the State would save $1,760,345.21. FNS contribution would decrease by $4,732,743.79 and CMS contribution would increase by $2,751,634.35, for a total $1,981,109.44 decrease in federal contribution. The overall cost savings for federal, state, and county departments would be equal to $5,062,872.61. These savings are based on an assumption that HCPF enhanced share will remain the same, however concerns exist that costs would fall into the non-enhanced category and the federal match would be closer to 50%, resulting in smaller overall savings.

	SNAP				MA				Additional / (Savings)
	Share	Cost Model Results	CFMS Reported Costs	Delta	Share*	Cost Model Results	CFMS Reported Costs	Delta	
Federal	50%	$ 11,848,873.48	$ 16,581,617.27	$(4,732,743.79)	62.5%	$ 17,345,993.47	$ 14,594,359.12	$2,751,634.35	$(1,981,109.44)
State	30%	$ 7,109,324.09	$ 9,948,970.36	$(2,839,646.27)	24.5%	$ 6,803,792.48	$ 5,724,491.42	$1,079,301.06	$(1,760,345.21)
County	20%	$ 4,739,549.39	$ 6,632,646.91	$(1,893,097.51)	13%	$ 3,603,803.60	$ 3,032,124.05	$ 571,679.55	$(1,321,417.96)
Total	**100%**	**$ 23,697,746.97**	**$ 33,163,234.54**	**$(9,465,487.57)**	**100%**	**$ 27,753,589.55**	**$ 23,350,974.59**	**$4,402,614.96**	**$(5,062,872.61)**
*MA share is an average of enhanced and non-enhanced.									

Figure 8 - County and State Savings Based on Changes in Contribution for SNAP and MA

- To address the gap between allocated costs and cost model results, CDHS is projected to add $19,107,325 to the 64 counties in SFY18, of which $9,044,674 should be attributed to the nine counties.
- While the study concentrated on a detailed analysis of the nine county cost, Deloitte estimated the cost for the remaining 55 counties by extrapolating weighted average monthly cost per case for each of the seven programs for the nine counties and multiplying it by respective program caseload for each of the remaining 55 counties. (See Appendix T for a granular view of cost model results by program for all 64 counties.)
- It should be noted that while the there is a high level of confidence in cost model results for the nine counties, cost variance should be expected in cost model results for the 55 counties based on the extrapolation of the nine county data.
- To achieve a more accurate estimation of the 64 county costs, the State should consider conducting a detailed cost analysis of the remaining 55

counties similar to the one produced for the nine counties in this study. The additional county activity and cost data for the 55 counties would provide the necessary details to more accurately determine the appropriate level of funding for all 64 counties

- **Analysis in Conjunction to Current Allocation Methodologies**
    - Colorado currently allocates 63% enhanced match funding to every county, though counties do not spend their resources uniformly on activities eligible for enhanced match.
    - Using updated workload each year to recalculate the funding distribution allows counties to more flexibly meet needs. However, the current method of using minutes per case to reflect level of effort does not include the full spectrum of activities conducted in counties. This study includes refinements that more closely reflect operational reality: separate activities between PEAK and non-PEAK, independently assigned contractor pay, a more detailed breakdown of activities, including back-office functions such as Finance, HR, Legal, and IT, and a more complete list of programs, such as additions of TANF, OAP-Cash.
    - The year-end redistribution process helps address some of the over-expenditures that may occur on a county level, and addresses some issues of inadequate funding caused by the current allocation method.
    - Performance-based financial incentives have led some counties to make changes to processes and help counties who receive the incentives to cover funding shortfalls.
    - Cost of living may be a factor in whether a county overspends or underspends.
- **Base Allocation Level**
    - Both small and large counties have a high percentage of fixed costs that may likely be supported by a base allocation level.
    - The minimum allocation of 5% below the previous year is generally enough to support counties who see a large drop in projected volume.

1.4. Recommendations

The information gathered through county surveys, observations, and State and county-provided data allowed for the analysis of county activity, cost, and performance. This analysis served as the basis for the development of the following recommendations. A “Business Benefits” definition is also included for the seven recommendations, which includes improved performance and processes, enhanced resource efficiency, and reduction in county administration costs. We provide detailed explanations for each of the recommendations in Section 8. It should be noted that the report does not provide an analysis around the cost of implementing BPR and the suggested recommendations,

due to differences in county processes and challenges, as well as time and resource constraints of this study. In addition, while the State and the counties have made investments in BPR in the past, this study did not have sufficient information to analyze the return on investment.

Business Benefit	Definition
Improve Performance and Processes	Decrease error rates, sustain or increase timeliness, and grow operational efficiency.
Improve Resource Efficiency	Utilize and allocate time, staff, and physical resources more efficiently and effectively.
Reduce County Admin Cost	Allocate county admin funds more effectively and minimize costs due to operational efficiencies.

1.0 Implement Specific BPR Practices in More Counties

#	Title	Summary	Business Benefits		
			Improve Performance and Processes	Improve Resource Efficiency	Reduce County Admin Cost
1a	Implement Workload Management System	By implementing a Workload Management System, counties will reduce manual review and assignments of caseload to eligibility workers, thereby streamlining the business processes and providing faster customer service	✓	✓	✓
1b	Utilize Electronic Records	Greater use of electronic records will help counties track case processing activities more carefully and inform county processes and resource allocation	✓	✓	✓
1c	Reduce Manual, Paper-Based Processes	Reducing paper-based processes will provide faster, easier and more confidential sharing of client data within the organization Eliminating duplicative effort by multiple workers and reducing cost due to minimized physical document printing and storage will improve processes	✓	✓	✓

1d	Redefine Intercounty Transfer Processes	Changing how intercounty case transfers are processed will decrease case processing times	✓	✓	✓

2.0 Improve Functionality of Application and Eligibility Systems

#	Title	Summary	Business Benefits		
			Improve Performance and Processes	Improve Resource Efficiency	Reduce County Admin Cost
2a	Update CBMS Database	Modernizing the backend CBMS database and updating connectivity between servers and systems will increase processing speed and improve system functionality	✓	✓	
2b	Add New Features to CBMS	Including case commentary will avoid external program workarounds (Microsoft Office) Allowing for Case Reviews will increase efficiency	✓	✓	
2c	Increase Interoperability Between Systems	Increasing interoperability will allow for more streamlined and proper process for sharing information between systems	✓	✓	
2d	Improve PEAK Functionality	Expanding PEAK's capabilities to recognize duplicate customer records and catch incorrect client data will not only decrease the processing time but also decrease the rework required to fix cases	✓	✓	✓

3.0 Improve Intercounty and State-to-County Communication

#	Title	Summary	Business Benefits		
			Improve Performance and Processes	Improve Resource Efficiency	Reduce County Admin Cost
3a	Improve Intercounty Communication	Enhanced intercounty communication will allow for better knowledge sharing and collaboration	✓	✓	
3b	Consolidate Program and State Information	By creating one location for all information and state communication, counties will rapidly increase staff knowledge and respond faster to client needs	✓	✓	

3c	Develop Consistent State-to-County Communication Plan	By implementing consistent, and where possible, coordinated communication from CDHS and HCPF, counties will be more aware of what is expected from them and better prepared to respond to State requests	✓	✓	

4.0 Improve State and County-Provided Training

#	Title	Summary	Business Benefits		
			Improve Performance and Processes	Improve Resource Efficiency	Reduce County Admin Cost
4a	Provide Comprehensive New Employee Foundational Training	By improving foundational training, new employees will be better prepared sooner to process cases independently	✓	✓	✓
4b	Offer More Ongoing Training Courses	By offering more ongoing training opportunities, the State will help staff identify and improve their knowledge gaps of policy and the system, and help improve their overall experience	✓	✓	
4c	Increase Training Opportunities for Remote Counties	Giving remote counties the ability to complete trainings virtually will lower pressure from staff to travel long distances and will reduce time spent away from case processing	✓	✓	✓
4d	Define the Purpose of State and County-provided Trainings	Clarity around State and County roles in delivering trainings will help avoid confusion around who is responsible for policy and process related content and will improve the overall quality of education provided to county staff	✓	✓	
4e	Incentivize Counties to Train in Fidelity	By incentivizing Counties to have their trainings vetted by the State, the State can eliminate trainings not conducted in fidelity	✓	✓	

5.0 Adjust Cost and Budget Allocations to Counties and Programs

#	Title	Summary	Business Benefits		
			Improve Performance and Processes	Improve Resource Efficiency	Reduce County Admin Cost

5a	Research Alternative Cost Allocation Methodologies and Update Program Codes	Improve the cost allocation by researching alternative cost allocation methodologies and determining which most accurately represent direct costs; and update CFMS program codes		✓	
5b	Use Workload to Determine Budget Allocation, Adjusting for Cost of Living	Calculate budget allocation to counties and programs based on funding requirements as dictated by activity times to perform the work and level of effort. Consider using a multiplier that takes into account cost of living for counties		✓	
5c	Vary Enhanced and Non-Enhanced Split by County	Vary the percentage of Medical Assistance enhanced match received by county to encourage counties to shift their work to direct service provision and streamline back office processes	✓	✓	✓
5d	Continue to Use Performance Incentives	Continue to use performance incentives, and prioritize incentives that encourage counties to continue to streamline or automate processes	✓	✓	✓

6.0 Continue to Use a Minimum Allocation

#	Title	Summary	Business Benefits		
			Improve Performance and Processes	Improve Resource Efficiency	Reduce County Admin Cost
6a	Continue to Use the Minimum Allocation of 5% Below the Previous Year	The minimum allocation is important to give counties time to divest resources as workload falls		✓	

2.Project Background

2.1. CDHS and HCPF Programs Background

CDHS is the principal department of the Colorado state government that operates the State's social services. Of the many programs overseen by CDHS, four public benefit assistance programs were part of this study. These programs are the Supplemental Nutrition Assistance Program (SNAP), Colorado Works – Temporary Assistance for Needy Families (TANF), Aid to the Needy and Disabled (AND), and Old Age Pension (OAP).

HCPF is the principal department of the Colorado state government responsible for supervising county administration of the state's public health insurance programs, which include the following four programs: Health First Colorado (Colorado's Medicaid Program), Child Health Plan *Plus* (CHP+), Long-Term Care Services (LTC), and Old Age Pension (OAP) Health and Medical Care Program.

While SNAP, MA, AND, OAP-Med, LTC, and CHP+ are funded through county administration dollars, TANF and OAP-Cash are funded through an appropriation via a block grant. The State of Colorado relies on a state-supervised, county-administered model for the administration of public assistance benefits to Coloradans across the 64 counties. Due to differences in county size, demographics, needs, and capabilities, counties utilize unique structures, processes, and methods for administering public assistance programs. Despite these differences, all counties are required to adhere to the same state and federal rules, regulations, and performance standards.

2.2. SB 16-190 Senate Bill

This study came as a result of SB 16-190, a Senate Bill signed into action on June 1, 2016 requiring the state department to contract with an external vendor to collect and analyze data relating to county department costs and performance associated with administering public assistance programs. In 2004, the Davis v. Birch lawsuit was filed on behalf of Colorado residents whose essential public assistance benefits were improperly denied or whose applications and RRRs for public assistance programs were not processed timely. Since then, the State and county departments made tremendous efforts to meet the terms of an agreement that called for a number of program quality improvements. The desired improvements included timely processing of 95% of eligibility determinations, reduction of backlog of public assistance benefit applications, improvement of client correspondence, creation of a universal phone line to accommodate Coloradans in emergency situations, and handling of emergency matters within five business days. As a result, HCPF and CDHS have successfully met the criteria in 2016. To assist CDHS and HCPF in further improving their performance, the State has engaged Deloitte to collect and analyze county cost and activities data

and recommend opportunities to enhance resource efficiency and improve the overall program quality and effectiveness.

Figure 9 provides an overview of the project, which includes State and county challenges as described by the State at the beginning of this study, project goals, two components of the assessment, and desired outcomes.

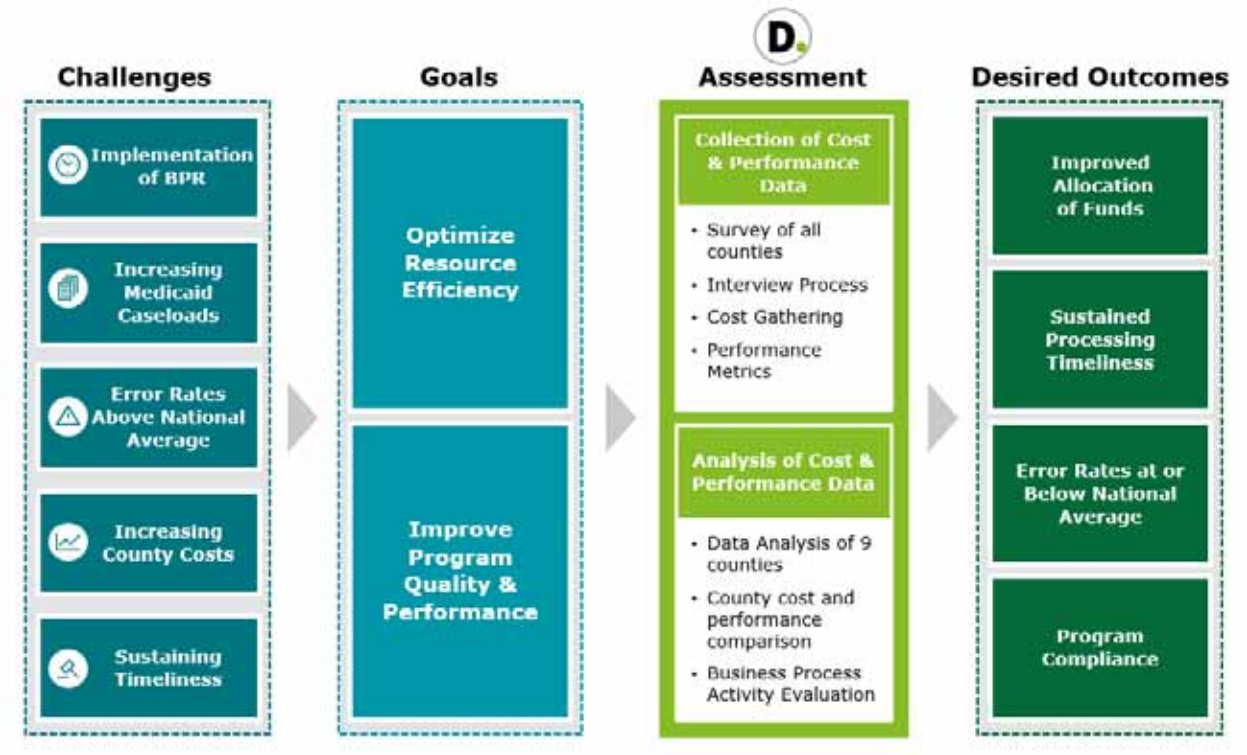

Figure 9 - Project Overview

The challenges outlined in Figure 9 are the most prevalent obstacles that the State identified ahead of this study around the administration of public assistance programs. A number of Business Process Reengineering (BPR) studies were completed between 2014 and 2016, which ultimately resulted in a number of counties improving their processes and additional counties purchasing an electronic workload management system (WMS). With the implementation of the Affordable Care Act (ACA) and Medical Assistance expansion in late 2013, counties across Colorado saw an immediate caseload increase in their Medical Assistance programs. As reflected in the table below,

for the last three State Fiscal Years, over 50% of counties have exceeded their budget to fund the CDHS public assistance programs.[1]

Fiscal Year	Over Spent Counties*	Under Spent Counties*
SFY 2015-16	47	15
SFY 2014-15	37	25
SFY 2013-14	50	12

*Total counties = 62 (two small counties operate with another county)

Figure 10 - CDHS Spending FY14-FY16

Similarly, over the last three years, there has been a consistent increase in the number of counties that are overspending administration funds to administer HCPF programs.[2]

Fiscal Year	Over Spent Counties*	Under Spent Counties*
SFY 2015-16	36	26
SFY 2014-15	28	34
SFY 2013-14**	9	53

*Total counties = 62 (two small counties operate with another county)
**First year enhanced federal match was available through the Affordable Care Act (ACA)

Figure 11 - HCPF Spending FY14-FY16

While Colorado continues to meet timeliness goals, it should continue to sustain them with increasing caseloads.

[1] Request for Proposal: The Collection and Analysis of Data Relating to County Department Costs and Performance Associated with Administering Public Benefit Assistance Programs. 2.3.6 County Administration. Below is a summary of County Administration Spending. Pg. 19

[2] Request for Proposal: The Collection and Analysis of Data Relating to County Department Costs and Performance Associated with Administering Public Benefit Assistance Programs. 2.3.6 County Administration. Below is a summary of County Administration Spending. Pg. 19

3.Project Goals and Approach

The primary goal of the project was to collect and analyze county activities, times, costs, performance, and business processes to provide recommendations for 1) resource efficiency and 2) improved program quality and performance. Both goals are in addition to compliance with SB 16-190.

To achieve these goals, the project was divided into four main stages: 1) planning and scope; 2) collection of cost and performance data; 3) analysis of cost and performance data; and 4) recommendations.

3.1. Planning and Scope

The purpose of the first stage was to build alignment on project scope, approach, objectives, schedule, and deliverables. To achieve these goals, the team held a kick-off meeting with State and county leadership to address questions and agree on the course of action. Following that, a project plan was built to guide the study and help achieve the timely delivery of objectives. Since Colorado follows a state-supervised, county-administered system, it was important to get a better understanding of different county structures, business processes, challenges, and leading practices at the very start of the project. To do that, the team conducted pilot visits to three counties—Arapahoe (large), Douglas (medium), and Sedgwick (small) —ahead of the official nine county visits that took place in the second stage of the project. These initial visits provided the required information to begin the development of a county survey that served as the primary data collection tool.

3.1.1 Activity Dictionary

To design the survey, Deloitte first began by creating the Activity Dictionary that listed and defined tasks, which comprise program administration. Each activity included a corresponding description to help clarify for participants how to categorize daily tasks. The goal of the Activity Dictionary was to provide a common understanding of possible activities and provide a mutually exclusive, collectively exhaustive taxonomy.

3.1.2 Survey

The Activity Survey was the primary data gathering tool utilized to collect processing times for the defined list of activities. The county staff utilized this online survey to track the time it takes to perform all daily activities. The survey took inventory of activity times within the assigned day.

The survey instrument was designed for all staff members who are fully or partially funded by the administration budget in relation to the following CDHS/HCPF programs (MA, SNAP, LTC, CHP+, AND), as well as those funded by the appropriation (TANF and OAP-Cash). There are some staff who are funded through the county administration budget, but do not support the seven programs in the study (e.g., Child Support, and LEAP, etc.) who were not expected to take the survey. The County

Champion communicated with management in their respective county to confirm exactly which team members needed to participate.

Survey Design

We created one survey for the nine counties originally participating in the extended study (survey and county visits), while the 55 remaining counties received an almost identical survey that included minor updates. The final surveys can be found in Appendix B1 and B2.

The survey was designed through an interface provided by a third-party vendor, Survey Monkey. The flow of the survey was as follows: introductory information, individual case/ time-entry (if applicable), additional activity time-entry, and four qualitative questions on leading practices, challenges, and technological tools and operational improvements.

Survey questions focused on time spent on activities, although we also required additional employment questions to expand our analysis: county of employment, recorded day worked, primary role, secondary role(s), part-time or full-time, contractor/ county employee, and tenure. From our pilot county visits, we learned that due to lower personnel levels, small counties often require staff to perform a range of roles and responsibilities.

Activity and time questions followed the introductory data questions. As the highest percentage of time worked is dedicated to processing cases, these questions preceded all other activities. Case processing is needed in a variety of instances including New Applications, RRRs, and Case Changes. When completing the survey, it was important to share how the case processing was received (PEAK/Non-PEAK) and for what programs the case was requesting action. There are three steps to process a case: 1) Application Initiation (AI); 2) Interactive Interview (II)/Eligibility Determination & Benefit Calculation (EDBC)/Authorization; and 3) Post-Authorization. Eligibility staff tracked in hours and minutes (5-minute increments) the time spent on each step. Every case completed in a tracked day was to be recorded in a similar fashion.

Beyond case processing, there are additional activities required to administer the eligibility programs, some of which include: case reviews, claims/hearings, management activities, trainings, and internal communication. The time was tracked in hours and minutes for these activities as well. The staff were given the opportunity to state the number of hours/minutes of overtime worked that day.

The survey concluded with four qualitative questions, allowing staff to freely respond on operational challenges, business process improvements, enhanced technological tools, and current leading practices.

3.2. Data Collection Approach

To execute this study, the nine participating County Directors designated one staff member to be the “County Champion.” The County Champions served as liaisons for

many requests asked of the county on behalf of Deloitte and the State. Champions assisted Deloitte in fulfilling the requirements for the data collection phase.

Data collection relied on four primary inputs: survey collection, county interviews and observations, county performance metrics, and county cost data. These inputs helped collect both quantitative and qualitative data to support the analysis. These data types were used to gain a full understanding of all county activities, and their related costs. Summarized below is the approach taken for each of the five inputs. The outcomes of the data collection are discussed in greater detail in sections 4, 5, 6, and 7 of this report.

3.2.1 Survey Collection

The subsections below describe the process for survey collection that began with survey training followed by survey rollout and gathering of the survey responses.

Survey Training

For the first nine counties taking the survey, we conducted three supervisor webinars. During these trainings, the team explained the overall purpose, outline, and flow of the survey accompanied with an explanation of the activity dictionary.

Through the feedback and questions received during our training sessions, Deloitte developed a guide that clarified the purpose of the survey (who, what, when, where, why, and how), in addition to a frequently asked questions (FAQs) page to help county staff complete it more independently.

Survey Rollout

After county supervisors completed the training and administered it to their staff, the staff were given two weeks to take the survey for any two days in the period between Monday, April 10, 2017 and Friday, April 21, 2017. By tracking two full work days for each person, we were able to collect a strong data sample that reflected a diverse set of activities performed by county staff.

Survey County Participation and Completion

The analysis of county activities and times associated with administering public benefit assistance programs relies principally on survey data received from the nine pilot counties in the study. We received a total of 1,749 survey responses, of which 17 entries (less than 1%) contained outlier data. Outlier data was determined based on case processing times in excess of four hours and total work in excess of ten hours per entry. In the analysis of survey responses, the 17 entries containing outlier data were removed, resulting in 1,732 survey responses.

Survey participation rate across the nine counties was 83.2%. Figure 12 below provides a graphical representation of participation by county size. County size is based on caseload with designations outlined in the statement of work.

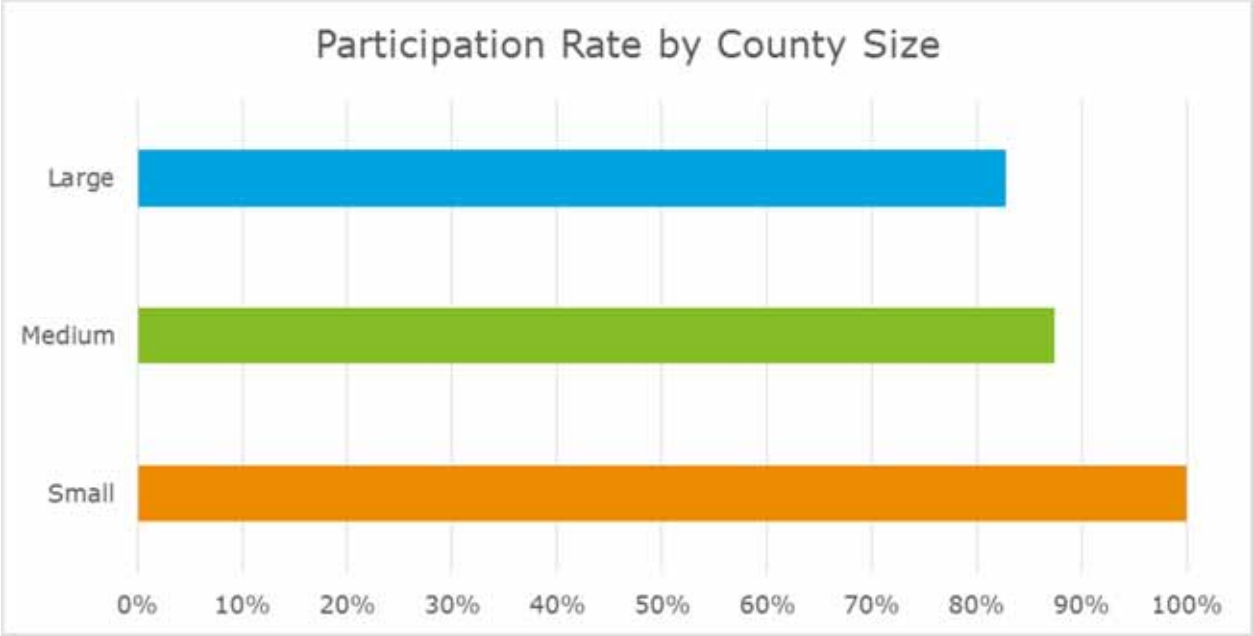

Figure 12 - Participation Rate by County Size

Figure 13 below shows a detailed breakdown of survey participant numbers, expected submissions for two days of activity recording, actual survey responses excluding entries containing outlier data, and the overall participation rate for each county.

County	Expected Participants	Expected Submissions	Actual Submissions	Participation Rate
Arapahoe	200	400	314	78.5%
Denver	381	762	628	82.4%
El Paso	247	494	419	84.8%
Mesa	133	266	229	86.1%
Alamosa	30	60	47	78.3%
Douglas	23	46	45	97.8%
Eagle	17	34	27	79.4%
Huerfano	13	26	26	100.0%
Sedgwick	7	14	14	100.0%
Total	1051	2102	1749	83.2%

Figure 13 - Survey Participation Detailed Breakdown

Out of nine counties, four are large and the total number of survey submissions for these counties is vastly greater than the total number of responses from medium and small counties, large counties are responsible for approximately 91% of data entries.

Figure 14 indicates the number and percentage of survey responses from small, medium, and large counties.

Size	Small	Medium	Large
Total Submissions	14	145	1590
Percent of Total	0.8%	8.3%	90.9%
Nine County Participation	Sedgwick	Alamosa Douglas Eagle Huerfano	Arapahoe Denver El Paso Mesa

Figure 14 - Survey Responses by County

Further analysis of 1,732 unique survey submissions shows county staff participation by survey respondents' primary role. Since case processing is the primary activity in the administration of public benefit assistance programs, eligibility workers/technicians were the largest response group in the study, which made up more than 50% of all survey responses. The next three largest response groups were from employees in Management, Support, and Operations groups in that order. Figure 15 below provides a visual representation of participation by primary role for small, medium, and large counties.

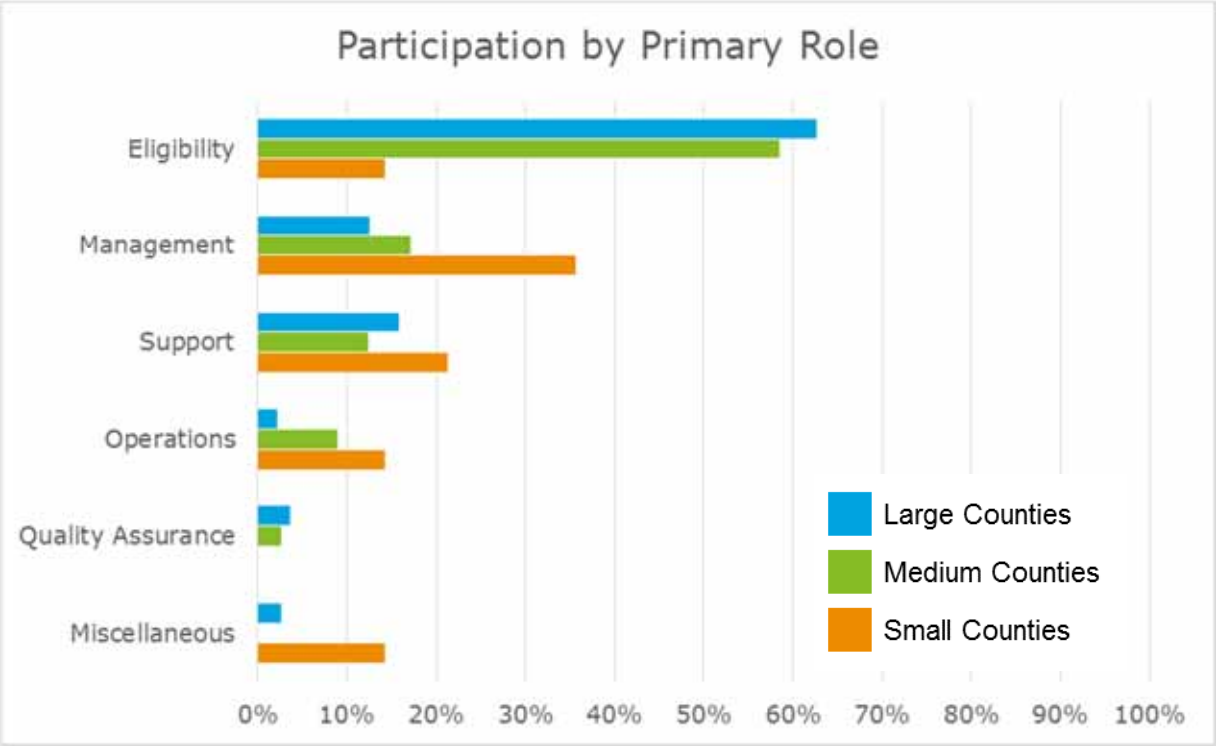

Figure 15 - Participation by Primary Role

It should be noted that for back office Operations activities such as Finance, HR, Legal, and IT, several counties share resources with other county agencies that did not participate in the survey. It is expected that a greater number of Operations staff provide indirect assistance for the administration of public assistance programs than has been recorded through the survey.

To provide additional context for the different types of roles and responsibilities that are included in each of the groups, Figure 16 below explains how various roles were classified into the six categories.

Eligibility	Management	Support	Operations	Quality Assurance	Miscellaneous
• Eligibility Worker • Technician	• Director • Manager • Supervisor	• Administrative Support • Business Analyst (BA) • Call Center Representative	• Human Resources • Finance & Accounting • Legal Services • Information Technology	• Quality Assurance • Investigations	• Medicaid Transportation • Data Analyst • PARIS Technician • Outreach Coordinator • Policy Analyst

Figure 16 - Primary Role Groups

In addition to the analysis of staff participation by primary role, it is also telling to assess staff experience, given that there is direct correlation between eligibility-related experience and the accuracy and efficiency of case processing. During county

observations, it was noted that it could take up to six months to a year for a new eligibility worker to process cases independently without supervision and extra case reviews and approval. Figure 17 shows staff experience where each color corresponds to a different experience level, each bubble represents one of the six role categories, and the size of the bubble corresponds to the number of staff in that position.

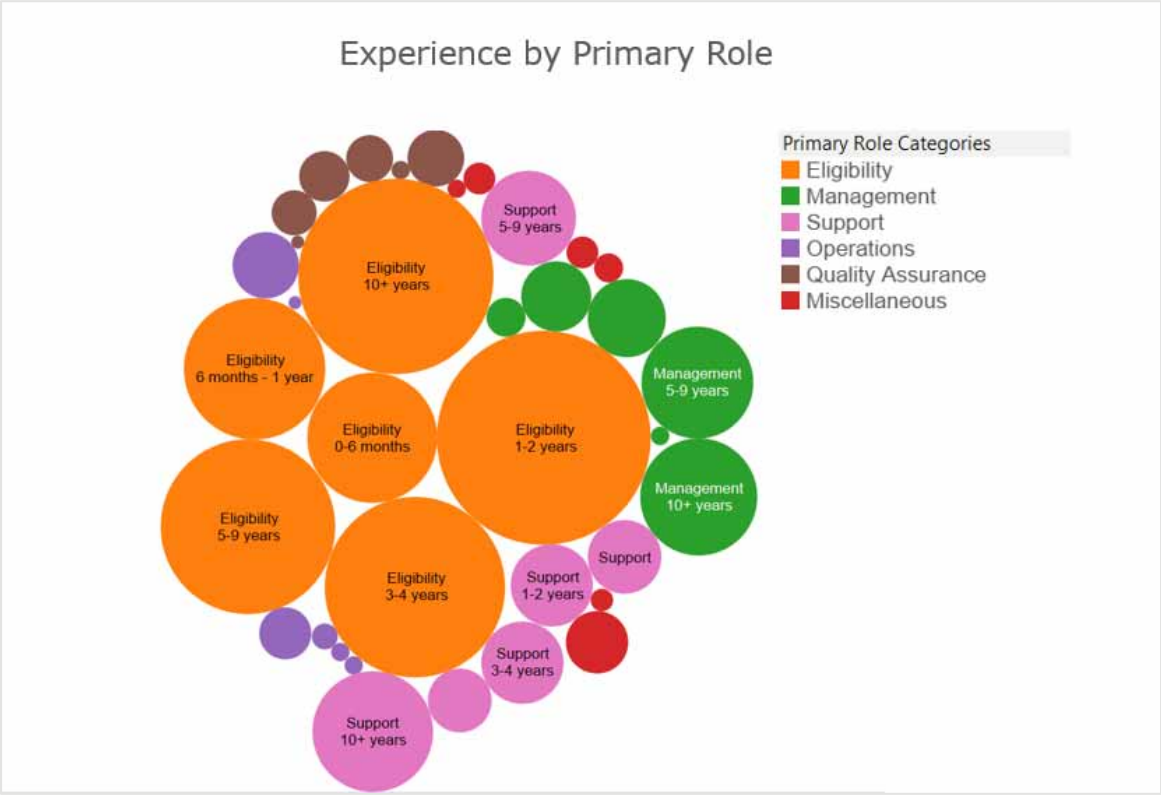

Figure 17 - Experience by Primary Role

3.2.2 County Interviews and Observations

To validate and provide additional context to the quantitative data received from the online survey and financial data provided by the State and supplemented by the counties, Deloitte conducted visits to the nine counties, as demonstrated in the map below.

Figure 18 - County Visits Map and Timeline

We gained insights into how cases were processed—by generalists vs. specialists, intake and ongoing, if and how workload management systems are used, as well as a general understanding of what challenges the county is currently facing.

3.2.2.1 Schedule

We conducted county visits over the course of two weeks, as outlined in Figure 18. In advance of our official visits, we scheduled conference calls with the County Champions to explain the purpose and expectations of our visit and provide time to answer any outstanding questions. We conducted official visits with the nine participating counties over the span of two weeks. During this time, a Deloitte team member spent one to two days meeting with county staff from a variety of divisions and departments, across all levels. Each visit had a similar structure though schedules varied between counties based on the county staff workers' availability. We had interviews with the County Director, Division and Unit Managers/Supervisors, and Eligibility Staff. In addition to these interviews, we carefully observed staff process cases and complete their routine activities.

3.2.2.2 Interviews and Observations

During the county visits, the team conducted interviews with county leadership, including managers and supervisors, as well as eligibility and front line staff to get a better understanding of different county processes and procedures. These observations further informed the study and helped the team validate data received through surveys.

An outline of the county visit components can be found below:

- **Interview with County Director.** Gathered information on the county's business model and current challenges and opportunities the county is encountering.

- **Interviews with Division and Unit Managers/Supervisors.** Focused on understanding how specific units processed a case, which staff completed each process, the time it takes to process a case, the recruiting, hiring, and training required for a new eligibility worker, and retention within their unit.

- **Interviews and Observations of Eligibility and Floor Staff.** Observed team members of different units to gain a comprehensive understanding of case processing.

The information gathered during these visits was essential to analyzing county business models and allowing us to identify innovative practices and opportunities for business improvements across the state.

3.2.3 County Performance Metrics

In addition to the quantitative and qualitative data received through the survey and official county visits, we collected county performance metrics. Performance metrics are one key component to understanding how effectively and efficiently a county is administering benefits to customers.

To help Deloitte assess county performance metrics, the State shared data from CBMS, the State's integrated eligibility determination and benefits system. We obtained data on the following metrics:

- Application Processing Timeliness
- RRR Processing Timeliness
- Payment Error Rate
- Payment Accuracy Rate
- Case and Procedural Error Rate
- Case Accuracy Rate

Our purpose of obtaining these metrics was to get a better understanding of county performance and challenges in meeting state processing standards.

3.2.4 County Data

Deloitte received a data extract of Colorado Financial Management System (CFMS) data for the calendar year 2016. Counties are reimbursed for their spending according to the matching formula. To receive this reimbursement, counties must enter their expenditures related to the county administration budget allocation into CFMS. These costs provide the majority of direct and allocated costs for the seven programs. In addition, TANF and OAP-Cash costs were provided based on the amount of block grant appropriated to these programs.

Our team mapped the chart of accounts to the seven programs and analyzed the data elements provided.

Program	Chart of Accounts	Notes
Supplemental Nutrition Assistance Program (SNAP)	Food Assistance	Funded through the County Administration and the Office of Self-Sufficiency lines in the Long Bill[3]
Medical Assistance Program (MA) + Old Age Pension (OAP)	Medical Assistance	Funded through the Department of Health Care Policy and Financing line in the Long Bill. Also known as Health First Colorado. Includes Long-Term Care Services, Medicare Savings Program, Low-Income Subsidy Eligibility
Children's Basic Health Plan	Included as part of Medical Assistance in CFMS, but denoted by program code M700	Funded through the Department of Health Care Policy and Financing line in the Long Bill. Also known as Child Health Plan Plus (CHP+)
Colorado Works Program	TANF	Funded through the Office of Self-Sufficiency line in the Long Bill
Program for Aid to the Needy and Disabled (AND)	Adult Financial	Funded through the Adult Assistance Programs line in the Long Bill
Old Age Pension Program – Cash (OAP)		Funded through the Adult Assistance Programs line in the Long Bill
Long-Term Care Services	Included as part of Medical Assistance in CFMS, but denoted by program code M628	Funded through the Medical Services Premiums line in the Long Bill

Figure 19 - Chart of Accounts Mapping by Program

Counties are required to submit all expenditures related to the seven programs each year up to the amount of their admin allocation. They are also expected to submit expenditures above that amount because the state may be able to redistribute some funds from underspent counties at the end of the year, or apply federal pass-through

[3] Joint Budget Committee FY 2017 – 2018 Budget Package and Long Bill Narrative, **https://leg.colorado.gov/sites/default/files/17lbnarrative.pdf**.

funds to the deficit. However, some counties may not follow this practice because they do not believe the overspent funds will be reimbursed and they have planned to cover the deficit through other means. In order to collect all county expenditures related to the seven programs, Deloitte requested that counties provide any potential expenditures not entered into CFMS, if such costs existed. However, none of the nine counties reported costs not entered into CFMS. Counties also provided overtime and midpoint salary costs of positions. This information helps identify the overtime cost of providing services and assists in distributing direct salary and benefit information to programs. The data requested directly from the counties is shown in the table below.

County Financial Data	Format and Content
County Costs **not** Reported to CFMS (itemized by cost type/account) for 2016 (Jan 1, 2016 to Dec 31, 2016)	• Provide a MS Excel or ASCII file of costs by account or category (i.e., payroll, travel, supplies) not reported in CFMS. • If the costs are provided according to an accounting code, please include a description of that code. • Do not include PII or PHI information.
Overtime costs/percentage	• If feasible, provide the cost associated with overtime for 2016 and indicate the percentage of overtime costs associated with each type of position in the table below. • If it is not feasible to obtain overtime costs, please estimate the number of overtime hours used in 2016 for each position table as well as the overtime rate (e.g., time and a half).
Salary ranges/rates	• Provide, for each position in the table below, the midpoint salary for each position or the average salary. The information requested is for the position—not the individuals. Do not include PII or PHI information.
Annual work hours	• Provide the annual hours your county expects staff to work. Some organizations use an annual work hour figure of 2,080 (40 hours per week X 52 weeks per year), other organizations set their annual hours to fewer weeks (i.e., 43) to account for vacations sick, leave, holidays, and other periods where staff do not work. This has no effect on salary or pay.

Figure 20 - Additional County Financial Data Requests

For some counties, the CFMS data also does not include county-funded positions that may indirectly provide services to the seven programs, such as county IT, HR, or finance staff. Some counties rely on shared county staff, and others do not. While the State of Colorado accounts for total FTE numbers and salaries in its financial system, it does not capture detailed counts of FTEs by position and salaries by position. Because Colorado does not have standardized processes and procedures for how expenditures are classified and reported, a direct comparison of the fully burdened cost of service for each of the pilot counties is not possible. However, comparisons between direct activities are possible, and overhead can be imputed. This report will indicate where these imputations have occurred for better comparison.

CFMS also includes an allocation of expenses to each of the programs funded through the admin allocation. This allocation is largely based on Random Moment Sampling (RMS), where a state-wide survey is administered to staff throughout the year. This study did not make use of the results of RMS because the survey administered through this study is meant to independently analyze the cost allocations being used currently, which are reflected in RMS.

Deloitte requested program allocation data and county spend plans from CDHS to identify whether counties overspent or underspent in 2016. This overspending and underspending information helped to identify trends, such as whether small, medium, or large counties are more likely to over-spend, or the correlation between over-spending and efficiency. The analysis based on this data is presented in Section 4.

Deloitte received the following allocations for state fiscal year 2016. The administration allocations below include all funding sources (federal, state, and county). The share between federal, state, and county funding is described in Sections 6 and 7.

County	TOTAL CDHS ALLOCATION*	TOTAL HCPF ALLOCATION	SFY-16 TOTAL ADMINISTRATION ALLOCATION	% of Total Allocation
Adams	$5,374,477.82	$4,448,529.89	$9,823,007.71	9.00%
Alamosa	$514,700.26	$445,179.56	$959,879.82	0.88%
Arapahoe	$6,123,170.93	$5,218,059.28	$11,341,230.21	10.39%
Archuleta	$146,368.31	$121,520.56	$267,888.87	0.25%
Baca	$78,174.61	$66,115.40	$144,290.01	0.13%
Bent	$128,352.73	$109,705.66	$238,058.39	0.22%
Boulder	$2,451,302.38	$1,954,802.48	$4,406,104.85	4.04%
Broomfield	$333,504.74	$270,653.06	$604,157.81	0.55%
Chaffee	$246,733.54	$205,958.83	$452,692.37	0.41%
Cheyenne	$57,316.36	$49,548.65	$106,865.01	0.10%
Clear Creek	$119,986.13	$102,089.85	$222,075.98	0.20%
Conejos	$198,657.09	$171,990.82	$370,647.91	0.34%
Costilla	$142,213.35	$118,714.75	$260,928.10	0.24%
Crowley	$88,125.36	$74,638.22	$162,763.58	0.15%
Custer	$58,729.61	$49,548.65	$108,278.26	0.10%
Delta	$529,697.54	$447,201.35	$976,898.89	0.89%
Denver	$10,368,851.62	$8,519,880.90	$18,888,732.51	17.30%
Dolores	$60,026.40	$49,548.65	$109,575.05	0.10%
Douglas	$934,785.52	$775,797.91	$1,710,583.43	1.57%
Eagle	$371,277.00	$303,684.54	$674,961.54	0.62%
Elbert	$128,355.66	$108,418.37	$236,774.03	0.22%
El Paso	$6,983,839.50	$5,972,844.90	$12,956,684.40	11.87%
Fremont	$773,717.93	$653,592.59	$1,427,310.52	1.31%
Garfield	$788,715.53	$642,347.68	$1,431,063.21	1.31%
Gilpin	$73,977.33	$62,605.59	$136,582.92	0.13%
Grand	$122,906.49	$101,253.15	$224,159.64	0.21%
Gunnison	$250,263.52	$210,844.10	$461,107.62	0.42%
Hinsdale**	$0.00	$0.00	$0.00	0.00%
Huerfano	$196,306.22	$164,872.74	$361,178.96	0.33%
Jackson	$57,221.13	$49,548.65	$106,769.78	0.10%

County	TOTAL CDHS ALLOCATION*	TOTAL HCPF ALLOCATION	SFY-16 TOTAL ADMINISTRATION ALLOCATION	% of Total Allocation
Jefferson	$4,116,155.42	$3,361,930.00	$7,478,085.42	6.85%
Kiowa	$58,283.11	$49,548.65	$107,831.76	0.10%
Kit Carson	$115,026.44	$97,866.15	$212,892.59	0.19%
Lake	$132,531.32	$112,515.96	$245,047.27	0.22%
La Plata	$567,417.65	$471,413.19	$1,038,830.84	0.95%
Larimer	$2,933,839.36	$2,420,371.16	$5,354,210.53	4.90%
Las Animas	$330,580.92	$286,149.68	$616,730.60	0.56%
Lincoln	$97,974.83	$84,014.10	$181,988.94	0.17%
Logan	$318,955.25	$266,928.88	$585,884.12	0.54%
Mesa	$2,043,873.84	$1,739,767.29	$3,783,641.13	3.47%
Mineral* **	$0.00	$0.00	$0.00	0.00%
Moffat	$227,308.09	$186,172.62	$413,480.71	0.38%
Montezuma	$446,313.76	$374,095.22	$820,408.98	0.75%
Montrose	$751,065.85	$642,583.30	$1,393,649.16	1.28%
Morgan	$466,893.67	$399,597.65	$866,491.32	0.79%
Otero	$469,693.60	$401,473.79	$871,167.39	0.80%
Ouray	$59,458.14	$49,548.65	$109,006.79	0.10%
Park	$179,925.20	$149,536.65	$329,461.86	0.30%
Phillips	$63,577.12	$51,566.35	$115,143.47	0.11%
Pitkin	$92,263.62	$70,151.20	$162,414.82	0.15%
Prowers	$333,512.18	$283,690.30	$617,202.48	0.57%
Pueblo	$3,318,357.76	$2,828,413.89	$6,146,771.65	5.63%
Rio Blanco	$86,179.75	$68,091.16	$154,270.91	0.14%
Rio Grande	$383,856.13	$326,334.36	$710,190.49	0.65%
Routt	$190,874.30	$158,069.58	$348,943.88	0.32%
Saguache	$170,499.85	$146,542.65	$317,042.50	0.29%
San Juan	$57,511.33	$49,548.65	$107,059.98	0.10%
San Miguel	$74,558.35	$60,569.97	$135,128.32	0.12%
Sedgwick	$59,433.42	$49,548.65	$108,982.07	0.10%
Summit	$250,666.67	$205,990.81	$456,657.47	0.42%
Teller	$323,066.55	$270,906.76	$593,973.31	0.54%
Washington	$62,496.29	$51,667.76	$114,164.05	0.10%
Weld	$2,881,031.31	$2,391,091.11	$5,272,122.42	4.83%
Yuma	$139,974.61	$115,402.13	$255,376.74	0.23%
GRAND TOTALS	**$59,504,910.34**	**$49,690,595.01**	**$109,195,505.36**	**100.00%**

*CDHS Allocation includes OAP-Cash Reported Costs (through CFMS)
**Hinsdale allocations and expenditures are included with Gunnison County totals
***Mineral allocations and expenditures are included with Rio Grande County totals

Figure 21 - County Allocations for State Fiscal Year 2016

We also received the following information on the percent over and underspent for CDHS and HCPF after closeout of state fiscal years 2014-2016. Underspent values are indicated with a negative (-). In general, CDHS tends to be overspent, and HCPF tends to be underspent. However, in the last two state fiscal years, many more counties have overspent on both programs.

County	2014 Percent CDHS	2015 Percent CDHS	2016 Percent CDHS	2014 Percent HCPF	2015 Percent HCPF	2016 Percent HCPF
Adams	13.00%	1.60%	22.60%	-10.70%	6.30%	3.40%
Alamosa	12.20%	-0.20%	4.90%	-20.30%	-10.70%	-4.00%
Arapahoe	6.20%	-12.00%	-3.60%	-22.90%	-10.70%	-14.20%
Archuleta	13.70%	-0.80%	12.70%	-37.70%	-19.50%	-18.70%
Baca	54.70%	82.00%	57.30%	-14.60%	16.60%	1.40%
Bent	22.60%	18.40%	34.50%	-32.30%	-2.30%	1.30%
Boulder	89.00%	92.10%	136.20%	23.30%	47.60%	69.40%
Broomfield	20.90%	35.80%	81.80%	-13.20%	39.30%	39.60%
Chaffee	24.80%	5.10%	12.10%	-14.00%	-0.40%	4.30%
Cheyenne	-1.00%	-15.00%	3.40%	-47.40%	-25.40%	-6.30%
Clear Creek	7.10%	11.80%	-4.20%	-55.40%	28.90%	5.40%
Conejos	22.50%	-7.30%	4.90%	-32.80%	-13.70%	-29.60%
Costilla	64.20%	45.00%	46.90%	-5.00%	3.90%	18.60%
Crowley	32.40%	31.00%	61.50%	-25.20%	6.00%	6.70%
Custer	-8.80%	5.50%	3.20%	-54.40%	-15.80%	-21.60%
Delta	5.70%	-2.70%	-6.20%	-40.10%	-24.40%	-34.40%
Denver	74.30%	58.50%	69.50%	4.50%	12.40%	7.20%
Dolores	-2.70%	4.50%	36.50%	-37.30%	-18.10%	-11.10%
Douglas	0.20%	-17.80%	-13.20%	-42.20%	-13.00%	0.00%
Eagle	34.10%	16.40%	52.60%	-2.90%	1.00%	3.60%
Elbert	-18.30%	-3.90%	40.60%	-2.40%	22.10%	-2.20%
El Paso	11.60%	18.00%	30.50%	-33.70%	-10.40%	-12.00%
Fremont	13.00%	-2.50%	6.90%	-35.80%	-19.00%	-14.50%
Garfield	62.00%	47.00%	59.50%	-8.80%	7.30%	2.80%
Gilpin	40.00%	34.40%	67.80%	-10.40%	8.80%	10.80%
Grand	65.00%	38.90%	27.90%	-9.90%	16.20%	0.60%
Gunnison	2.80%	-1.20%	-14.70%	-45.10%	-7.90%	-8.70%
Hinsdale	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Huerfano	6.00%	-14.80%	-14.20%	-26.90%	0.50%	-4.60%
Jackson	-59.10%	-53.30%	-56.80%	-101.50%	-37.40%	-36.00%
Jefferson	9.30%	7.10%	39.30%	-20.20%	-4.50%	-3.10%
Kiowa	32.70%	-4.20%	0.90%	-2.30%	-5.50%	5.50%
Kit Carson	28.80%	18.10%	25.30%	-11.70%	-1.30%	0.00%
Lake	55.40%	28.80%	47.20%	-7.10%	0.00%	-9.90%
La Plata	6.00%	6.00%	24.40%	-31.50%	-18.10%	-16.70%
Larimer	30.70%	5.70%	23.70%	-11.80%	-3.40%	0.10%
Las Animas	-2.70%	-2.50%	-2.60%	-23.90%	-13.30%	-8.30%
Lincoln	18.10%	41.60%	45.60%	-7.70%	21.00%	12.10%
Logan	14.70%	-7.40%	-2.00%	-4.50%	10.10%	8.70%
Mesa	9.50%	-2.30%	16.60%	-25.30%	-15.30%	-13.70%
Mineral	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Moffat	36.30%	37.90%	36.00%	-16.80%	6.60%	0.00%
Montezuma	-7.80%	-1.80%	9.10%	-34.30%	-11.50%	-12.80%
Montrose	-10.90%	-28.80%	-23.90%	-27.80%	-7.30%	-12.50%
Morgan	4.90%	-23.60%	-24.70%	-41.80%	-12.00%	-5.20%
Otero	36.40%	24.60%	38.70%	-36.90%	-10.30%	0.00%
Ouray	22.90%	50.80%	36.00%	-22.40%	23.60%	4.70%
Park	10.10%	5.10%	4.40%	-23.20%	-12.60%	-16.10%
Phillips	60.00%	49.00%	28.80%	-2.60%	15.20%	10.20%
Pitkin	80.30%	45.40%	117.50%	-4.50%	4.80%	4.80%

County	2014 Percent CDHS	2015 Percent CDHS	2016 Percent CDHS	2014 Percent HCPF	2015 Percent HCPF	2016 Percent HCPF
Prowers	25.80%	-4.20%	8.20%	-9.70%	1.20%	0.00%
Pueblo	0.50%	-7.30%	6.50%	-34.90%	-14.20%	-12.80%
Rio Blanco	112.40%	131.60%	112.30%	9.90%	42.30%	32.30%
Rio Grande	-13.50%	-11.60%	-11.70%	-47.40%	-18.50%	-17.00%
Routt	38.20%	34.60%	75.90%	-7.40%	10.40%	5.80%
Saguache	-7.40%	-15.70%	-14.80%	-22.70%	-3.10%	-10.00%
San Juan	-58.70%	-52.20%	-51.70%	-80.90%	-45.00%	-52.80%
San Miguel	10.50%	45.20%	32.70%	-32.90%	21.10%	9.10%
Sedgwick	37.40%	17.20%	25.00%	-1.30%	17.20%	10.80%
Summit	1.70%	5.30%	6.10%	-32.00%	-2.60%	0.00%
Teller	-8.10%	-15.10%	-9.70%	-39.10%	-4.60%	3.80%
Washington	17.30%	24.50%	57.10%	-7.10%	20.00%	20.70%
Weld	57.20%	26.40%	51.50%	1.90%	13.30%	16.50%
Yuma	38.30%	30.50%	29.70%	-13.40%	-0.70%	-7.70%
TOTALS	**27.3%**	**17.0%**	**32.9%**	**-14.2%**	**-0.1%**	**-0.3%**

Figure 22 - County Over and Underspending in State Fiscal Year 2014 - 2016

The state provided application, RRR, and timeliness data for the calendar year 2016 from the CBMS for each county. CBMS is a web-based program used in Colorado to determine eligibility for medical, food, and cash assistance programs. Deloitte mapped programs in CBMS to the seven programs in the study in the following manner.

Program	Symbol	Study Program
Adult Financial	AND	Aid to the Needy and Disabled
Children's Health Plan Plus	CHP	Children's Health Insurance Plus
Colorado Works	TANF	Colorado Works
County Diversion	OTH	Other Program
Disaster Food Assistance	OTH	Other Program
Employment First	SNAP	Food Assistance
Family Preservation	OTH	Other Program
Food Assistance	SNAP	Food Assistance
Long Term Care	LTC	Long-Term Care
Medical Assistance	MED	Medicaid
Non-Monetary Services	OTH	Other Program
Old Age Pension	OAP	Old Age Pension - Cash
Presumptive Eligible Medical	OTH	Other Program
Workforce Development	OTH	Other Program

Figure 23 - County Data in CBMS

CBMS data is used in the time-driven activity based costing (TD/ABC) model described in section 3.2.2 below to drive costs from activities to services.

Deloitte requested data on claims, hearings, investigations, and other activity volumes not available in CBMS directly from the nine pilot counties. Deloitte used this data to incorporate into the model, to help with scheduling county visits, and to gain a qualitative understanding of county operations. Below is a table of data requested and its purpose in this study:

#	Document	Source	Purpose
1	**Program Structure**		
1.1	Names and Contact Information of County Directors/Managers	County	Scheduling county visits
1.2	County Org Charts including Functional Team Structures and FTE Count	County	Allocating FTE costs to activities
1.3	Case Business Process Maps and Information	County	Confirming activity structure in the model
1.4	Strategic Plans and Ongoing Projects	County	Understanding process improvements
2	**Fiscal Data (categorized by name, description, program, unique identifier)**		
2.1	Current County Expenditures from the State Model	CDHS and HCPF Fiscal Offices	Used as an input to the model
2.2	County Costs not Reported to CFMS (itemized by cost type/account)	County	Used as an input to the model
3	**Program Metrics**		
3.1	Program Caseloads (user metrics by county, program, $, etc.)	CDHS/HCPF from CBMS	Used as an input to the model
3.2	New Application Numbers	CDHS/HCPF from CBMS	Used as an input to the model
3.3	RRR Numbers	CDHS/HCPF from CBMS	Used as an input to the model
3.4	Changes, Claims, Hearings, Case Review Numbers	County	Used as an input to the model
3.5	Processing Timelines (compliance, time-to-process)	CDHS/HCPF from CBMS, County (e.g., Changes)	Used as an input to the model
3.6	Error Rate Data	CDHS/HCPF	Used as an input to the model and as a basis for recommendations
3.7	Other Relevant Performance Metrics	County/CDHS/HCPF	Used as an input to the model
3.8	• Call Center Numbers • Investigation Numbers • Audit/Management Evaluation Response Numbers • State Exception Report Numbers (e.g., PARIS, COLA, Prohibited Use reports) • Lobby visit numbers	County	Used as an input to the model and as a basis for recommendations
4	**Other**		
4.1	Data related to work performed for secondary programs (i.e., LEAP, etc.)	County	Used as an input to the model
4.2	Trainings (required time and processes)	County	Used as a basis for recommendations
4.3	Help Desk Tickets	County	Used as a basis for recommendations

Figure 24 - Data Request List

3.3. Data Analysis Approach

The approach for data analysis was based on the assessment of county activities, times, cost, and performance as well as evaluation of methods for proper allocation of resources to achieve maximum program efficiency and effectiveness. The analysis of inputs also helped to determine trends, challenges, and leading practices that counties experience in their day-to-day operations.

3.3.1 Approach for Analysis of County Activities and Time

The analysis of county activities and time was based on data collected through the online survey. A high response rate was required to confirm the analysis included a healthy representative sample to inform the study findings.

An analysis was conducted to evaluate how the staff spends their time across case processing activities and additional activities that support the seven programs in the study. Reported times for each of the activities that fall into case processing were added to arrive at the portion of total staff time dedicated to processing cases. The same process was used to add all the reported minutes dedicated to 15 tasks categorized as additional activities.

To provide greater detail, the study evaluated average case processing times for new applications, RRRs, and case change, as well as for different programs, for each of the nine counties. The assumption was that it takes the longest to process a new application, slightly less time to process an RRR, and the least amount of time to process a change.

The analysis also aimed to understand the volume of cases worked during the two days of activities tracking. Since clients can apply for a single program or multiple programs, the study looked to analyze what individual or combination programs were the most popular programs for which clients. This information was then used to evaluate average case processing times for all individual programs and the most popular multiple-program applications. An analysis one level deeper broke down this information by case type (new application, RRR, case change), allowing for a realistic picture of case processing times for the most popular programs for each type of case.

Lastly, the study analyzed additional activities that constitute 60% of total staff time to assess most and least time-consuming supporting tasks. This information was expected to provide clarity around true allocation of time throughout each day and call out tasks that take up a disproportionally large amount of staff time.

3.3.2 Approach for Analysis of County Costs and Performance

Time-driven activity-based costing (TD/ABC) models identify the time required to do a unit of work and compare that level of effort to the associated cost. This is different from typical budget exercises which allocate an amount of funding to a program prior to delivering the services under that program.

This analysis is completed through the combination of cost and performance information described in section 3.1 in a TD/ABC model. The TD/ABC model includes the activities described in the “County Times and Activities” section above. The model, which was created in CostPerform cost management software for this study, maps CFMS costs to activities and activities to the seven programs. The analysis approach is similar to the approach taken in the 2007 study, which can allow for comparison of the results from the two studies.

The TD/ABC model is composed of five elements:

1. **Resource Pools.** The resource pools included in the TD/ABC model are all expenditures reported by the counties related to the in-scope, end-to-end business processes which includes both labor (salary and benefits) and non-labor (capital outlay, office space, and operating) costs. See section 3.2.4 for further details related to the resources included in this study. Resources are pooled together by type so that they can be more easily assigned to activities.

2. **Resource Driver.** The resource driver is the time spent by staff and contractors on activities, as measured by the survey.

3. **Activities.** The activities are the work required to provide the services of the seven programs within the scope of the study. The activities are compiled in an “activity dictionary” formulated based on a review of the 2007 study, existing documentation, the pilot site visits conducted early in the study, and discussions with CDHS and HCPF leadership. The activities are designed to be a mutually exclusive and collectively exhaustive list of work required to provide the seven programs so that all costs are accounted for. The activities are also designed to be measurable by volume pulled from the system of record and through the survey.

4. **Activity Drivers.** The activity drivers are the number of occurrences in a year of each process, sequence of activities, or singular activity, for each county and high-level program group. Activity drivers include number of intakes per program and county.

5. **Cost Objects.** The cost objects are the items for which costs are being measured. In this model, the cost objects are the cost to provide the seven programs.

The wireframe diagram below shows a conceptual view of the model. Each step in the calculation process is described below, with the relevant portion of the wireframe diagram depicted.

- Step 1: Expenditures are aggregated into resource pools

- Step 2: Resources are allocated to activities through activity drivers

- Step 3: Calculate direct and indirect cost per activity
- Step 4: Allocate activity costs to programs
- Step 5: Calculate the full cost of each program

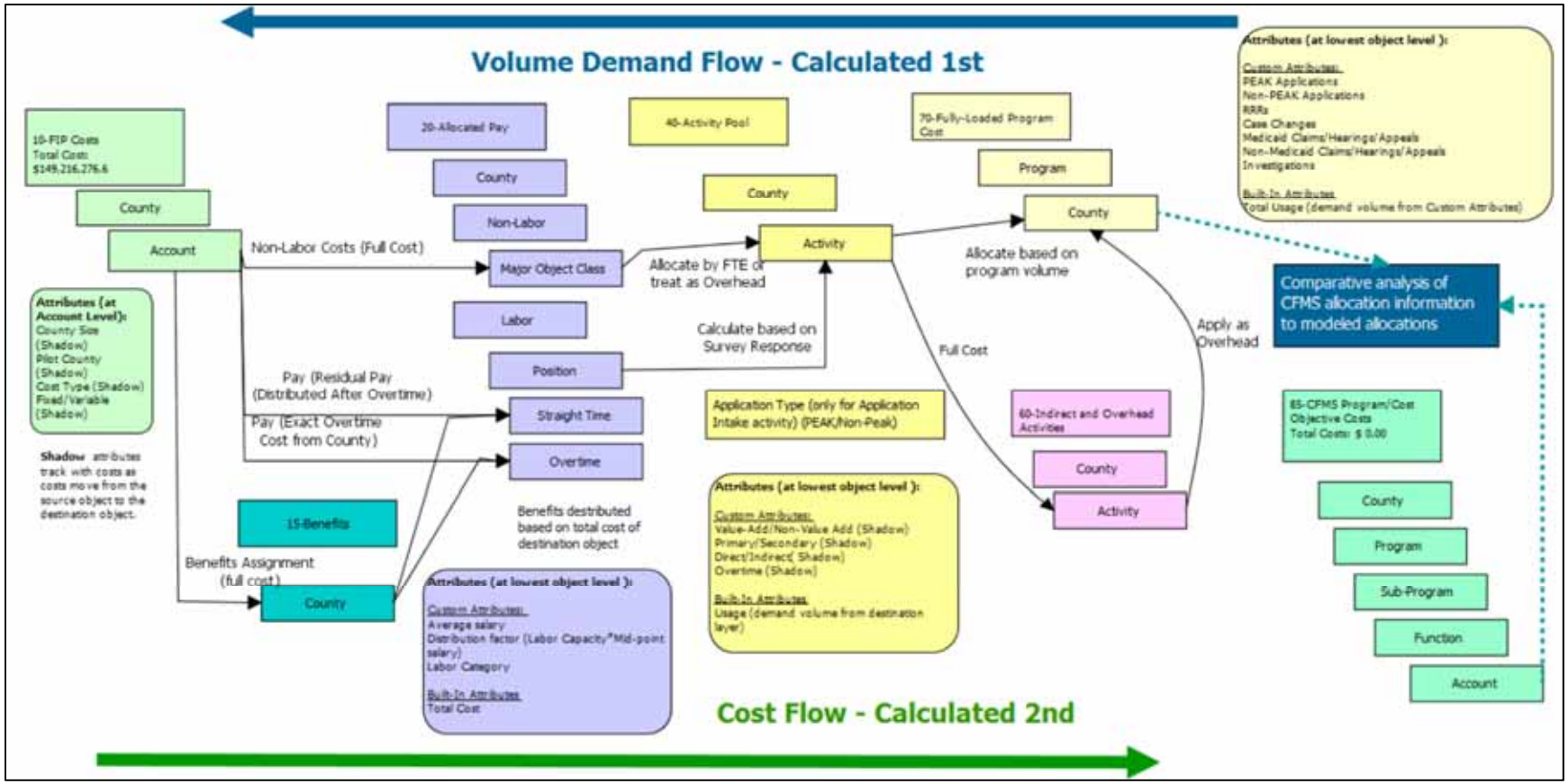

Figure 25 - Wireframe of the Cost Model

Step 1: Expenditures are aggregated into resource pools

The resources entered into the model are each tagged with attributes that will allow for further analysis: the county size, whether the county is a pilot county, cost type, whether the cost is fixed or variable, and the source of funding (i.e., federal, state, or county). Labor and non-labor costs are pulled and receive further attributes to enable detailed analysis: FTE; full-time or part-time; contractor; direct, support, or supervisor position; overtime; midpoint salary; position hours; and labor capacity. Tagging the resources and pools allow for each activity and cost of the cost object to be analyzed by any of these attributes.

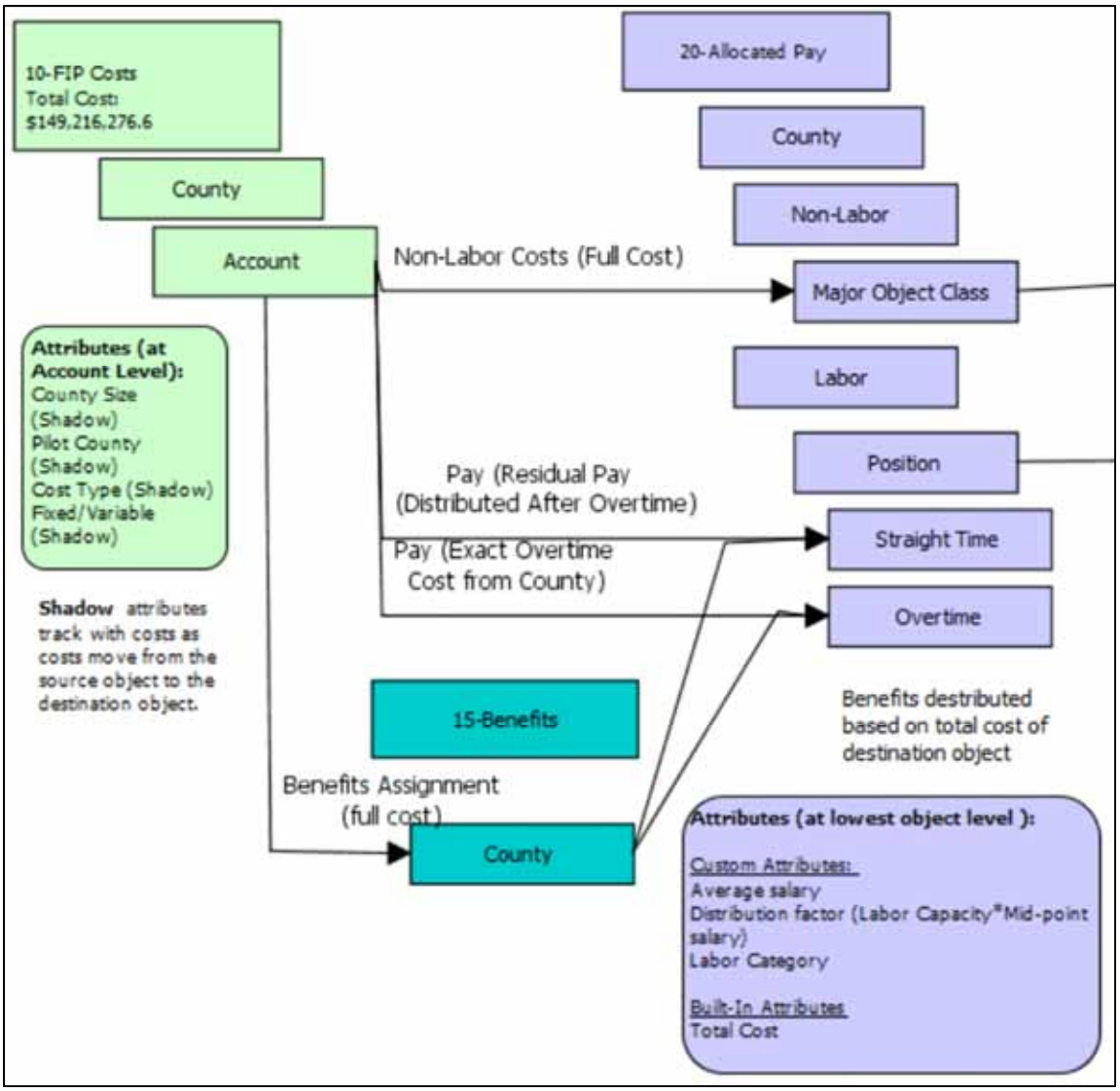

Figure 26 - Wireframe of Expenditures Aggregated into Resource Pools (Excerpt of Figure 25)

Step 2: Resources are allocated to activities through activity drivers

The survey gives time per activity by program and county. These results are used to allocate costs to activities from FTEs and contractors who are performing the activities. For FTEs and other costs that are not directly attributable to activities (i.e., overhead costs), an overhead driver is used.

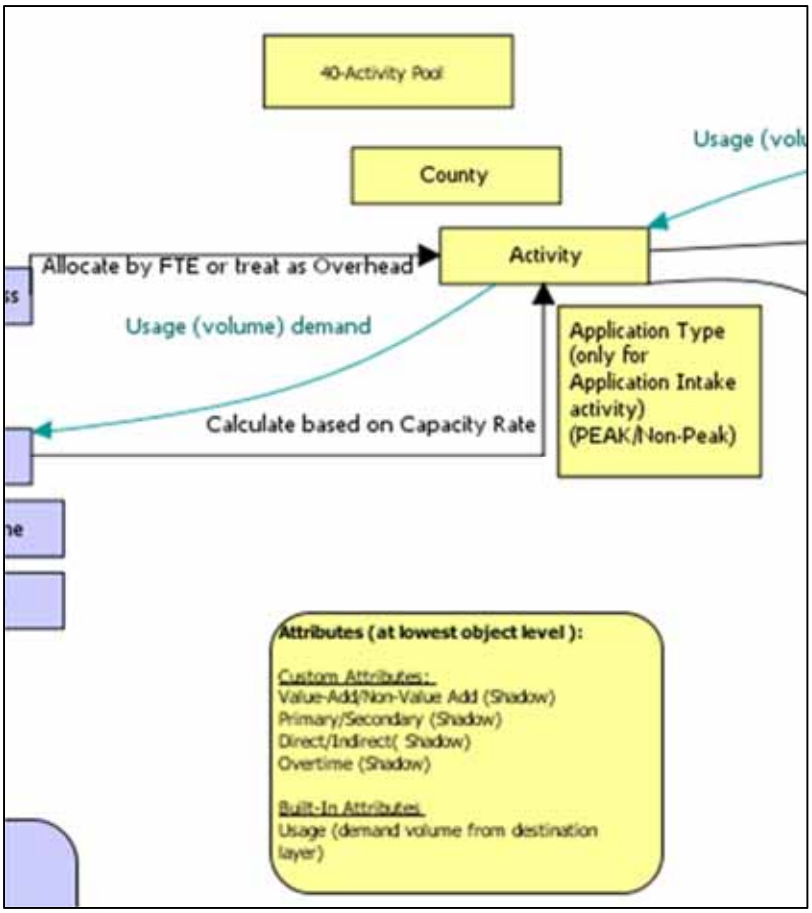

Figure 27 - Wireframe for Costs Allocated to Activities (Excerpt of Figure 25)

Step 3: Calculate direct and indirect cost per activity

The activity dictionary activities include New Application, RRR, or Case Change processing (includes AI, I/EDBC/Authorization, and Post-Authorization), Claims/Hearings/Appeals (Medical), Claims/Hearings/Appeals (Non- Medical), Investigations, Case Reviews/Quality Assurance, Customer Services, Help Desk, and several others. A copy of the Activity Dictionary can be found in Appendix A.

Further attributes for activities include: direct and indirect; primary and secondary; and delivery and support or admin and overhead. Direct activities involve direct provision of service, such as application intake and interactive interview. Indirect activities can support multiple services, such as finance, HR, and IT. Activities tagged “delivery and support” involve direct service delivery to clients and items that directly support delivery such as training and IT. All other activities are administrative and overhead, such as management, finance, and facilities.

Primary and secondary activities were defined in the statement of work, though they do not map directly to the final activity dictionary for this study that was approved by the State in the first phase of this study. These definitions are embedded in the activities in the model where possible. In collaboration with Colorado, Deloitte formulated a more streamlined activity dictionary for this study to create a more efficient model and lower the burden on county workers reporting their time on the survey. For example, activities like voter registration assistance and working with funeral home providers were not specifically modeled in this study.

According to the statement of work, primary activities included: Initial determinations through approval/denial; RRR through approval/denial; PEAK inbox, including Real Time-Eligibility (RTE) Exceptions; fiscal oversight of county department; fraud investigations; validation and recovery of benefit overpayments; staff meetings; training new and seasoned technician on program policy and system navigation; supervision of staff; client communications – development, transmission, and interpretation; data collection; records management (including document scanning); HIPAA review; case review; and verification and reporting of issues with State systems, such as CBMS and CHATS, to the State help desk.

Secondary activities included: COGNOS and Decision Support System (DSS) reporting, including Income Responsible for Eligibility Verification System (IEVS), PARIS and automatic reenrollment for HCPF programs; voter registration; case transfers; Electronic Benefits Transfer (EBT); reports to State agencies; case reviews required by State program units; customer service calls; quality improvement initiatives; open enrollment/coordination with Connect for Health Colorado (ACA); seasonal LEAP enrollment; ID merges; level of experience/proficiency/turnover/training; IRS Form 1095-B for health insurance coverage; Advanced Premium Tax Credits (APTC) work relating to Connect for Health Colorado; county dispute resolution conferences; appeals and hearings; SNAP Employment & Training (Employment First); returned mail; identifying and cataloging other resources within the Department or county that can assist clients; getting interpreters; working with funeral home providers; reviewing third-party

verification; and others that may be identified through the contractor's review of State statutes and State and federal rules that govern and direct the state and counties in the administration of the Public Assistance Programs identified in Section 3.1 of the RFP.

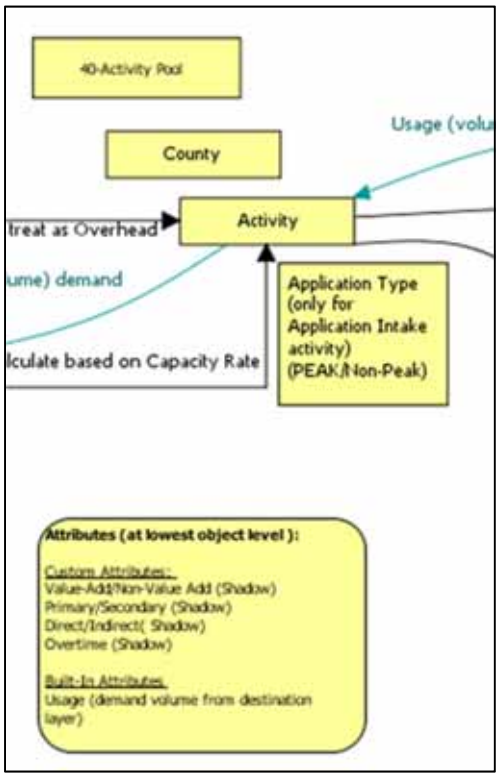

Figure 28 - Wireframe of Direct and Indirect Activity Calculations (Excerpt of Figure 25)

Step 4: Allocate activity costs to programs

Once the full cost of each activity is calculated, the model uses workload received from CBMS to allocate activity costs to programs. After direct resources are driven to activities, overhead is added to create a fully loaded or fully burdened cost per activity.

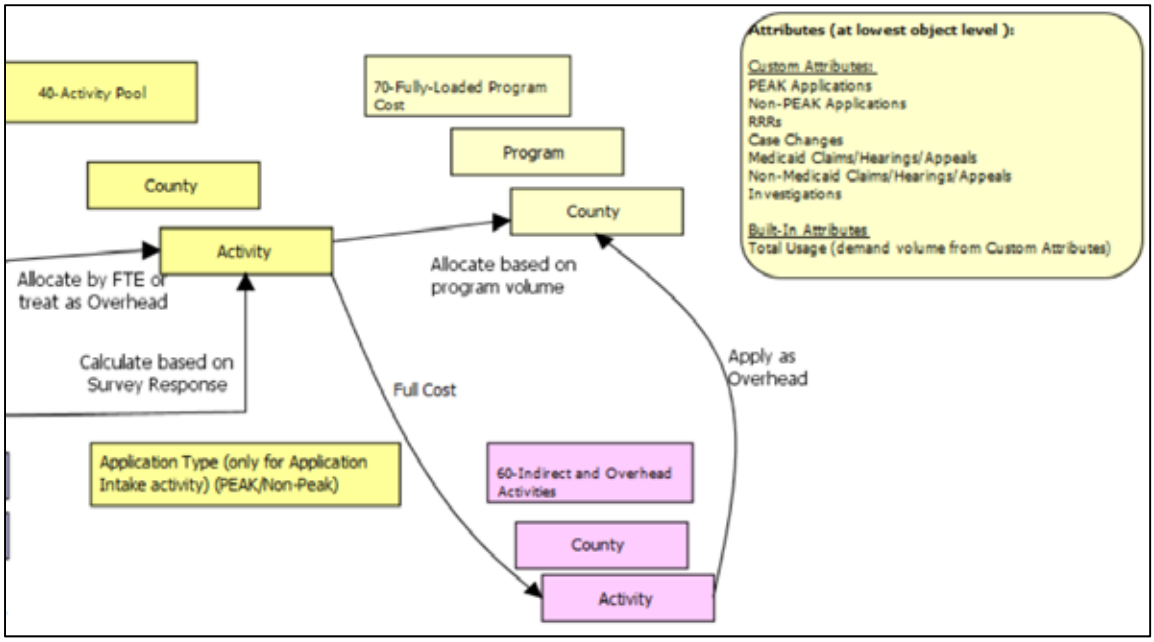

Figure 29. Wireframe of Activity Costs Allocated to Programs (Excerpt of Figure 25)

Step 5: Calculate the full cost of each program

Once the full cost of each program is calculated, a comparison can be made to the allocation calculated each year to distribute the appropriation.

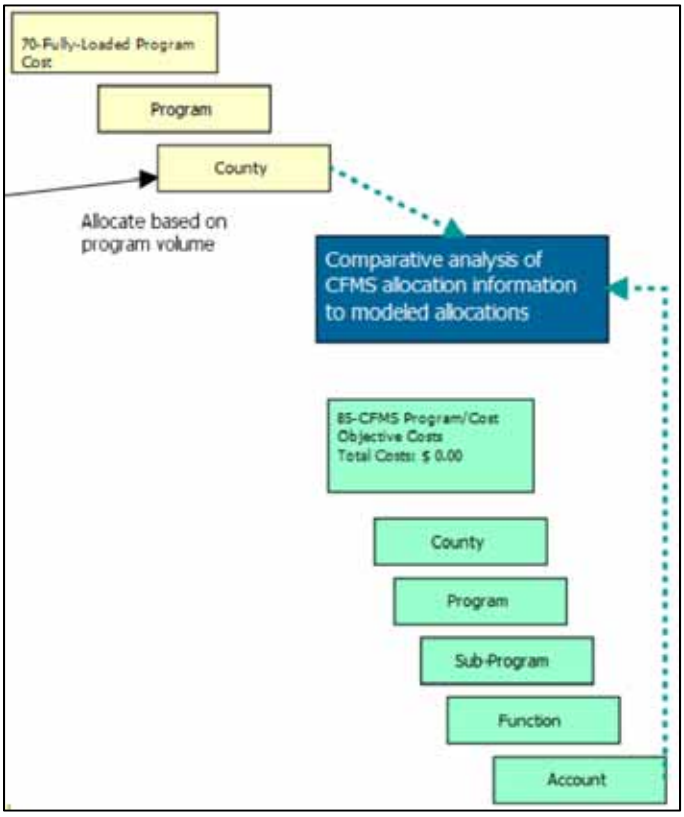

Figure 30 - Wireframe of Fully Loaded County Costs Allocated to Programs (Excerpt of Figure 25)

3.4. Peer State Cost Comparison Approach

There are nine other states with state-supervised, county-administered benefits management systems for medical and food assistance: California, Colorado, Minnesota, New Jersey, New York, North Carolina, North Dakota, Ohio, and Pennsylvania. Of the wide variety of geographies, populations, and work opportunities in these states, Deloitte worked with the State of Colorado to select states that are similar across several factors. For example, Minnesota is similar in population size and Virginia has a similar economy, with a large government-employed workforce, farming, and some seasonal industries. Deloitte also interviewed Maryland, though Maryland is not used as a direct comparison because Maryland uses state staff to provide eligibility services in each county. Of these states, only Virginia did not expand Medicaid after the Affordable Care Act was passed in 2010. States were also selected based on their availability to share information during the study. One state deferred having the conversation about their financials and current best practices. While we were able to have phone calls with three states, we either could not gain access to the states' fiscal leadership or the states were hesitant to share specifics of their funding models and practices. As such, Deloitte and the Colorado CDHS/HCPF leadership were only provided with high-level funding models and overarching business processes. We made multiple attempts to facilitate more in-depth discussions with peer states, however, given the unavailability of the State personnel during the study's tight timeline, we were unable to speak with more than the three mentioned earlier (MD, MN, VA).

Deloitte used the following outline to guide the discussion. The discussion questions below were provided to the interviewees prior to the interview.

Financial

- What is the funding arrangement for review of administration (eligibility determination, etc.) of programs such as SNAP, TANF, MA and CHP+ in your state and what mechanism do you use when allocating funds to your counties?
- How does the state and county share costs (i.e., reimbursement, etc.)?
- How does the state and/or counties determine cost allocation across programs (i.e., Medicaid and SNAP)?
- What happens when counties under or over spend?

People

- What are your staffing concerns? Is turnover an issue?
- Who is responsible for training staff? How are staff trained? Are there requirements for ongoing training of eligibility workers?
- What role does the state and counties play in receiving member feedback?

Process

- Has the state or counties engaged in business process redesigns or strategic initiatives? What have been the results? Who funded the BPR work?

- Does the state or counties implement a workload management system?
- How does the state combat client fraud and promote program integrity? What is the state versus county role in fraud investigations? Are the recoveries shared between state and county, and at what percentage split?

Technology

- What system of record do counties use? What features does it have? How much of the eligibility functions are automated in the system? Does the state use interfaces to validate eligibility data, and to what extent?

State Oversight

- Is the agency responsible for overseeing financial eligibility programs also responsible for overseeing medical eligibility programs or are they distinct and separate?
- How, in what format and frequency, does the state communicate day-to-day operations to the county?
- Who is responsible for appeals – the state or the county? Are there dispute resolution conferences, and who is responsible for these?

Medical Assistance

- Do counties engage in medical case management or care coordination post-medical eligibility determination? Do they play a role in onboarding members for medical benefits?

4. SB 16-190 Program Analysis

Based on the approach described in Section 3 of the report, a detailed analysis has been conducted to meet the requirements of Senate Bill 16-190 to assess county cost and performance in administering public benefit assistance programs. Specifically, the study analyzed the following CDHS and HCPF programs: Medical Assistance (MA), Supplemental Nutrition Assistance Program (SNAP), Colorado Works - Temporary Assistance for Needy Families (TANF), Children's Basic Health Plan (CHP+), Aid to the Needy and Disabled (AND), Old Age Pension (OAP), and Long-Term Care Services (LTC).

In the sub-sections that follow, the report will: 1) examine county performance in meeting State and federal timeliness and error rate requirements; 2) provide a detailed analysis of county activities associated with the administration of the included public assistance programs and the time required to carry out these tasks; 3) evaluate work not yet completed; 4) assess county costs variances and their relationship to county performance; and 5) analyze opportunities for business process improvement.

The analysis is based on survey data for nine pilot counties in the study (Alamosa, Arapahoe, Denver, Douglas, Eagle, El Paso, Huerfano, Mesa, and Sedgwick), county visits and observations, and State- and County-provided data around cost, performance, organizational structure, and business processes.

4.1. Performance Measures

All states track specific performance measures to better understand how effectively and efficiently they are administering their public assistance programs. These metrics include application processing timeliness, RRR process timeliness, Payment Error Rate (PER), Payment Accuracy Rate (PAR), Case and Procedural Error Rate (CAPER), and Case Accuracy Rate (CAR). It should be noted that PER / PAR and CAPER / CAR are tracked for CDHS programs only. All these measures are further explained in the sections below.

Data Inputs

The study analyzed the following data inputs collected from CBMS:

- New Application Timeliness
- RRR Timeliness
- Payment Error Rate (PER)
- Payment Accuracy Rate (PAR)
- Case and Procedural Error Rate (CAPER)
- Case Accuracy Rate (CAR)

Each year the State must report these figures to the Federal Government, and for some programs, such as SNAP, States with the better and improved program performance receive bonus awards.

4.1.1 Application Processing Timeliness

The table and corresponding graph below depict application processing timeliness as an average of all 64 counties between January and December 2016.

Month	Adult Financial	Colorado Works	Food Assistance	Medical Assistance
Jan-16	98.93%	99.72%	98.15%	97.70%
Feb-16	99.15%	99.71%	98.43%	97.97%
Mar-16	99.14%	99.42%	97.07%	97.64%
Apr-16	99.57%	99.72%	98.10%	98.42%
May-16	99.08%	99.67%	98.48%	97.99%
Jun-16	99.06%	99.85%	98.32%	98.22%
Jul-16	99.26%	99.62%	98.71%	98.39%
Aug-16	99.50%	99.61%	98.58%	98.77%
Sep-16	99.75%	99.71%	98.62%	98.84%
Oct-16	99.24%	99.76%	98.69%	98.84%
Nov-16	99.65%	99.62%	98.96%	99.01%
Dec-16	99.29%	99.79%	98.23%	99.19%

Met application processing timeliness goal
Did not meet application processing timeliness goal

Figure 31 - Application Processing Timeliness by Program for FY2016

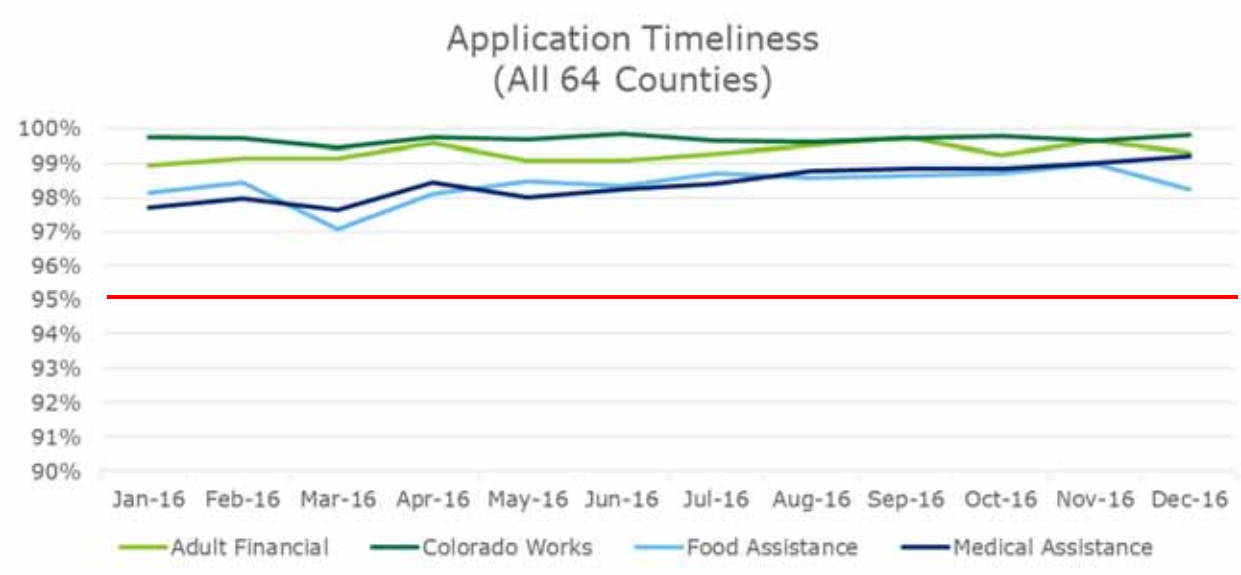

Figure 32 - Graph of Application Processing Timeliness by Program for FY2016

As a whole, the State of Colorado was timely the entire calendar year for the following programs: Adult Financial, Colorado Works, Food Assistance, and Medical Assistance. The State of Colorado does not break out LTC, CHP+, or OAP timeliness from Medical Assistance timeliness. Detailed new application timeliness metrics by County are

provided in Appendix O. In the future, we recommend that this data is tracked to allow for focused improvements on specific program case processing.

4.1.2 RRR Processing Timeliness

In addition to application processing timeliness, the State also tracks timeliness of processing RRRs. A similar table and graph are included below to outline the timeliness rate for four programs: Adult Financial, Colorado Works, Food Assistance, and Medical Assistance. Detailed RRR timeliness metrics by County are provided in Appendix P.

Month	Adult Financial	Colorado Works	Food Assistance	Medical Assistance
Jan-16	90.27%	94.32%	95.18%	94.77%
Feb-16	88.83%	94.47%	96.11%	96.78%
Mar-16	90.75%	94.71%	96.12%	96.95%
Apr-16	94.30%	96.05%	97.70%	97.27%
May-16	94.02%	96.81%	97.73%	97.35%
Jun-16	96.26%	96.78%	97.68%	97.55%
Jul-16	95.14%	96.92%	97.37%	96.99%
Aug-16	96.42%	97.24%	98.34%	96.69%
Sep-16	95.72%	97.02%	98.09%	97.99%
Oct-16	94.47%	96.51%	96.95%	97.34%
Nov-16	94.99%	97.21%	96.96%	96.32%
Dec-16	95.01%	96.92%	96.79%	98.31%

Met redetermination processing timeliness goal
Did not meet redetermination processing timeliness goal

Figure 33 - RRR Processing Timeliness by Program for FY2016

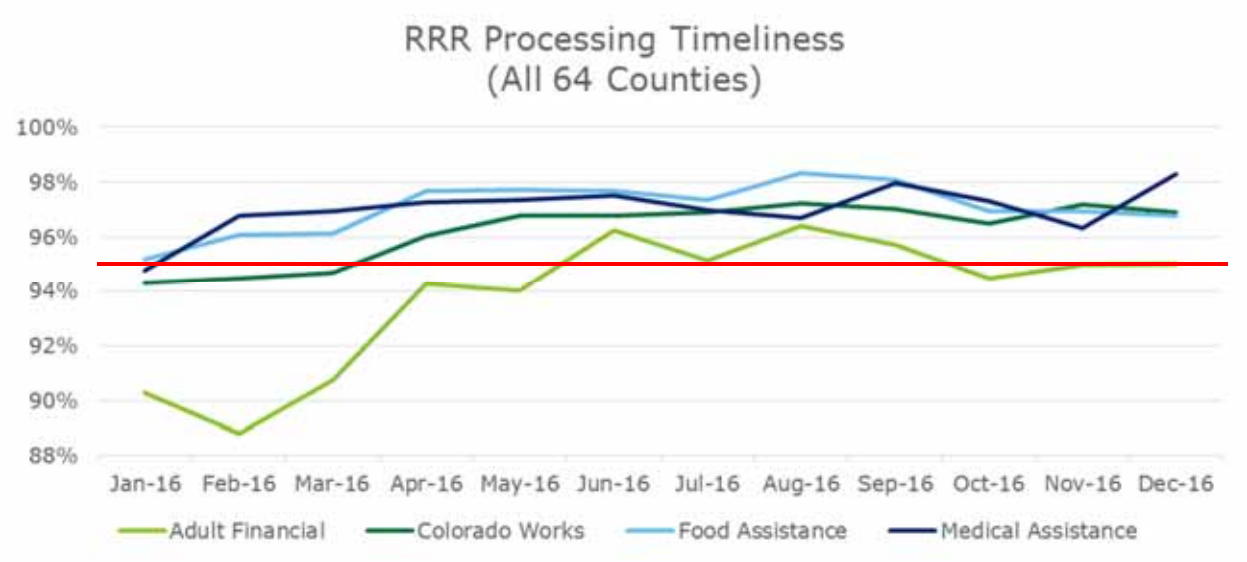

Figure 34 - Graph of RRR Processing Timeliness by Program for FY2016

Colorado Works, Food Assistance, and Medical Assistance had an overall annual average above the 95% threshold, while Adult Financial had an annual average of 94.7%, just below the target. Though each of the four programs hovered around the threshold in the first quarter of the year, Colorado Works, Food Assistance, and Medical Assistance continuously improved throughout the rest of the year. Medical Assistance thrived in the last quarter of the calendar year, ending in December with a 98.0% RRR timeliness rate.

4.1.3 Payment Error Rate (PER)

Payment Error Rate (PER) tracks improper under and overpayments of eligibility benefits to Colorado recipients for SNAP (PER). The error rate is calculated by reviewing a sample of cases statewide throughout the year, adding up each dollar of over or under payments if applicable, and dividing it by the total payment dollar amount. The result is the PER, or the average % of improper payments.

The State's goal for Food Assistance PER is 3%. However, the State average was 0.51% over this threshold during the time period from October 2015- September 2016. County performance is noted in the table below. Detailed PER measures by County are provided in Appendix L.

County	Total Cases Reviewed	Above	Below	Case Error Rate	Payment Amount	Payment Difference	Payment Error Rate (<3%)
Adams	102	6	18	23.53%	$ 33,492.00	$ 787.00	2.35%
Alamosa	2	-	-	0.00%	$ 407.00	-	0.00%
Arapahoe	93	6	10	17.20%	$ 29,213.00	$ 679.00	2.32%
Archuleta	1	1	-	100.00%	$ 194.00	$ 77.00	39.69%
Baca	1	-	-	0.00%	$ 493.00	-	0.00%

County	Total Cases Reviewed	Above	Below	Case Error Rate	Payment Amount	Payment Difference	Payment Error Rate (<3%)
Bent	1	-	1	100.00%	$ 610.00	-	0.00%
Boulder	31	-	4	12.90%	$ 8,459.00	-	0.00%
Broomfield	3	-	-	0.00%	$ 384.00	-	0.00%
Chaffee	2	-	1	50.00%	$ 215.00		0.24%
Cheyenne	2	1	-	50.00%	$ 527.00	$ 84.00	15.94%
Clear Creek	1	-	-	0.00%	$ 154.00	-	0.00%
Conejos	4	1	-	25.00%	$ 1,391.00	$ 286.00	20.56%
Costilla	1	-	-	0.00%	$ 52.00	-	0.00%
Crowley	1	-	-	0.00%	$ 46.00	-	0.00%
Delta	12	2	1	25.00%	$ 2,093.00	$ 192.00	9.17%
Denver	179	11	43	30.17%	$ 44,207.00	$ 938.00	2.12%
Douglas	12	-	1	8.33%	$ 3,397.00	-	0.00%
Eagle	1	-	-	0.00%	$ 59.00	-	0.00%
El Paso	80	10	15	31.25%	$ 21,041.00	$ 1,831.00	8.70%
Fremont	15	-	2	13.33%	$ 3,877.00	-	0.00%
Garfield	2	1	-	50.00%	$ 456.00	$ 72.00	15.79%
Grand	2	-	1	50.00%	$ 553.00	-	0.00%
Gunnison	1	-	-	0.00%	$ 457.00	-	0.00%
Huerfano	3	-	1	33.33%	$ 189.00	-	0.00%
Jackson	1	-		0.00%	$ 16.00	-	0.00%
Jefferson	55	3	8	20.00%	$ 14,986.00	$ 306.00	2.04%
Kit Carson	1	-	-	0.00%	$ 40.00	-	0.00%
Lake	1	-	1	100.00%	$ 341.00	-	0.00%
La Plata	8	-	2	25.00%	$ 1,818.00	-	0.00%
Larimer	42	3	11	33.33%	$ 10,132.00	$ 249.00	2.46%
Las Animas	5	-	1	20.00%	$ 1,002.00	-	0.00%
Logan	2	-	-	0.00%	$ 351.00	-	0.00%
Mesa	35	3	5	22.86%	$ 8,797.00	$ 455.00	5.17%
Moffat	1	-		0.00%	$ 194.00	-	0.00%
Montezuma	7	2	-	28.57%	$ 2,226.00	$ 233.00	10.47%
Montrose	9	-	2	22.22%	$ 2,046.00	-	0.00%
Morgan	4	1	1	50.00%	$ 1,786.00	$ 91.00	5.10%
Otero	10	-	2	20.00%	$ 2,849.00	-	0.00%
Park	3	-	1	33.33%	$ 1,685.00	-	0.00%
Prowers	4	-	-	0.00%	$ 700.00	-	0.00%
Pueblo	51	5	9	27.45%	$ 10,678.00	$ 333.00	3.12%
Rio Blanco	3	-	1	33.33%	$ 899.00	-	0.00%
Rio Grande	2	-	-	0.00%	$ 685.00	-	0.00%
Saguache	5	-	1	20.00%	$ 1,163.00	-	0.00%
Sedgwick	1	-	1	100.00%	$ 525.00	-	0.00%

County	Total Cases Reviewed	Above	Below	Case Error Rate	Payment Amount	Payment Difference	Payment Error Rate (<3%)
Summit	1	-	-	0.00%	$ 194.00	-	0.00%
Teller	7	1	1	28.57%	$ 3,111.00	$ 665.00	21.38%
Washington	3	1	1	66.67%	$ 310.00	$ 86.00	27.74%
Weld	45	5	7	26.67%	$ 14,421.00	$ 822.00	5.70%
Yuma	1	-	-	0.00%	$ 414.00	-	0.00%
TOTAL*	**859**	**63**	**153**	**25.15%**	**$ 233,335.00**	**$ 8,186.00**	**3.51%**

*Only 50 of the 64 counties were sampled during this State fiscal year

Figure 35 - Food Assistance PER by County from October 2015-September 2016

The top three errors within the reviewed Food Assistance cases included: miscalculation of wages and salaries; incorrect shelter deductions; and incorrect household composition. Research shows the errors occurred due to several reasons, the most prevalent included: client reported information disregarded (35.37%); incorrect data entry into CBMS (15.7%); incomplete information provided (11.04%); and misapplication of policy (10.29%).

4.1.4 Payment Accuracy Rate (PAR)

The State of Colorado tracks PAR by reviewing a number of cases and tracking the number of cases found with payment errors. The payment accuracy rate is the number of cases with correct payments divided by the total number of cases reviewed. The State has a goal of 97% payment accuracy.

The PAR results for Adult Financial (AF) include both Aid to the Needy and Disabled (AND) and Old Age Pension (OAP). The results were based on 34 of the 64 counties as these counties were the only ones sampled during the program year. For these counties, payments were accurate 92.88% of the total, making the error rate 7.12%, and 4.12% below the 97% goal. The overall under or over payment for these 34 counties resulted in $8,286 of improperly allocated funds. Detailed PAR measures by County are provided in Appendix L.

County	Total Cases Reviewed	Cases with Findings	Payment Amount	Correct Payment	Payment Difference	Payment Accuracy Rate % (>97%)
Adams	25	22	$7,596.00	$6,999.00	$711.00	90.64%
Arapahoe	31	21	$12,697.00	$12,697.00	$0.00	100.00%
Boulder	17	15	$5,551.00	$5,023.00	$528.00	90.49%
Broomfield	4	4	$893.00	$817.00	$76.00	91.49%
Clear Creek	2	0	$809.00	$809.00	$0.00	100.00%
Conejos	1	1	$385.00	$385.00	$0.00	100.00%
Costilla	2	2	$227.00	$227.00	$0.00	100.00%
Crowley	2	1	$954.00	$954.00	$0.00	100.00%
Delta	3	3	$668.00	$668.00	$0.00	100.00%
Denver	122	94	$38,418.00	$35,950.00	$2,502.00	93.49%
Douglas	4	3	$1,231.00	$809.00	$422.00	65.72%
Eagle	1	1	$280.00	$280.00	$0.00	100.00%
Elbert	1	1	$306.00	$0.00	$306.00	0.00%
El Paso	35	28	$12,045.00	$11,845.00	$256.00	97.87%
Fremont	3	3	$415.00	$415.00	$0.00	100.00%
Garfield	3	3	$1,580.00	$1,580.00	$0.00	100.00%
Grand	1	1	$454.00	$454.00	$0.00	100.00%
Huerfano	2	1	$939.00	$939.00	$0.00	100.00%
Jefferson	26	22	$9,810.00	$8,548.00	$1,262.00	87.14%
La Plata	2	1	$809.00	$809.00	$0.00	100.00%
Larimer	11	10	$3,583.00	$3,164.00	$419.00	88.31%
Las Animas	1	1	$147.00	$147.00	$0.00	100.00%
Logan	1	1	$163.00	$163.00	$0.00	100.00%
Mesa	9	6	$1,734.00	$1,696.00	$38.00	97.81%
Montezuma	4	4	$688.00	$124.00	$564.00	18.02%
Montrose	2	2	$540.00	$189.00	$351.00	35.00%
Morgan	1	1	$189.00	$189.00	$0.00	100.00%
Otero	15	10	$3,382.00	$3,344.00	$38.00	98.88%
Phillips	1	0	$38.00	$38.00	$0.00	100.00%
Prowers	4	4	$367.00	$367.00	$0.00	100.00%

County	Total Cases Reviewed	Cases with Findings	Payment Amount	Correct Payment	Payment Difference	Payment Accuracy Rate % (>97%)
Pueblo	29	22	$4,868.00	$4,218.00	$650.00	86.65%
Rio Grande	1	1	$163.00	$0.00	$163.00	0.00%
Saguache	2	2	$960.00	$960.00	$0.00	100.00%
Weld	15	8	$3,511.00	$3,511.00	$0.00	100.00%
State Totals	**383**	**299**	**$116,400.00**	**$108,318.00**	**$8,286.00**	**92.88%**

*Only 34 of the 64 counties were sampled during this State fiscal year

Figure 36 - Adult Financial PAR by County from October 2015-September 2016

Colorado Works – TANF

The PAR results for Colorado Works were based on 28 of the 64 counties as these counties were the only ones sampled during the program year. For these counties, payments were accurate 91.46% of the total, making the error rate 8.54%, and missing the 97% goal by 5.54%. The overall under or over payment for these 28 counties resulted in $7,564 of improperly allocated funds.

County	Total Cases Reviewed	Cases with Findings	Payment Amount	Correct Amount	Payment Difference	Payment Accuracy Rate % (>97%)
Adams	10	8	$4,342.00	$4,342.00	$0.00	100.00%
Alamosa	4	3	$1,061.00	$1,061.00	$0.00	100.00%
Arapahoe	19	12	$7,639.00	$7,523.00	$116.00	98.48%
Archuleta	1	1	$571.00	$571.00	$0.00	100.00%
Baca	1	1	$359.00	$359.00	$0.00	100.00%
Boulder	5	3	$2,177.00	$2,324.00	$147.00	93.25%
Costilla	2	2	$1,151.00	$787.00	$364.00	68.38%
Denver	44	31	$17,583.00	$13,287.00	$4,444.00	74.73%
Douglas	1	0	$561.00	$561.00	$0.00	100.00%
Eagle	1	1	$571.00	$571.00	$0.00	100.00%
El Paso	43	21	$17,151.00	$17,151.00	$0.00	100.00%
Fremont	3	1	$1,510.00	$1,510.00	$0.00	100.00%
Jefferson	12	6	$5,011.00	$4,437.00	$756.00	84.91%
La Plata	2	0	$984.00	$984.00	$0.00	100.00%
Larimer	11	5	$4,354.00	$4,354.00	$0.00	100.00%
Las Animas	3	2	$1,054.00	$571.00	$483.00	54.17%
Logan	1	1	$691.00	$691.00	$0.00	100.00%
Mesa	9	2	$3,510.00	$3,510.00	$0.00	100.00%
Montrose	3	0	$1,281.00	$1,281.00	$0.00	100.00%
Morgan	1	1	$665.00	$665.00	$0.00	100.00%
Otero	5	4	$2,037.00	$1,673.00	$364.00	82.13%
Park	2	2	$663.00	$653.00	$10.00	98.49%
Phillips	1	1	$364.00	$0.00	$364.00	0.00%
Prowers	2	1	$836.00	$836.00	$0.00	100.00%
Pueblo	20	8	$7,776.00	$7,260.00	$516.00	93.36%
Rio Grande	3	1	$576.00	$576.00	$0.00	100.00%
Washington	1	0	$364.00	$364.00	$0.00	100.00%
Weld	9	1	$3,717.00	$3,717.00	$0.00	100.00%
State Totals	**219**	**119**	**$88,559.00**	**$81,619.00**	**$7,564.00**	**91.46%**

*Only 28 of the 64 counties were sampled during this State fiscal year

Figure 37 - Colorado Works - TANF PAR by County from October 2015-September 2016

4.1.5 Case and Procedural Error Rate

Colorado also tracks the Case & Procedural Error Rate (CAPER), which is a measure of negative actions taken on a case for SNAP. CAPER is calculated by reviewing a sample of cases statewide throughout the year, evaluating how many of those cases were incorrectly processed, and dividing it by the total number of cases reviewed. Examples of CAPER include incorrect policy applied, verification errors, and computer related problems.

The State of Colorado's Food Assistance program missed the 21% goal by 3.33% (24.33%). CAPER invalid cases occurred through one of the following three steps of processing a case: notices/correspondences to the customer (45%); completion of the application (36%); and completion of verification requirements (19%). The top causes for these errors include: policy incorrectly applied (17.09%); failure to send a notice of action (10.55%); data entry or coding error (9.05%); and unclear language in customer notice (8.54%).[4] Detailed CAPER measures by County are provided in Appendix L.

County	Complete	Errors	Case & Procedural Error Rate (<21%)
Adams	62	13	21.0%
Alamosa	3	1	33.3%
Arapahoe	97	26	26.8%
Archuleta	5	1	20.0%
Bent	1	-	0.0%
Boulder	35	8	22.9%
Broomfield	1	-	0.0%
Chaffee	2	-	0.0%
Clear Creek	1	-	0.0%
Conejos	1	-	0.0%
Costilla	1	-	0.0%
Crowley	1	1	100.0%
Delta	3	1	33.3%
Denver	125	27	21.6%
Douglas	22	6	27.3%
Eagle	6	2	33.3%

County	Complete	Errors	Case & Procedural Error Rate (<21%)
El Paso	143	45	31.5%
Elbert	1	-	0.0%
Fremont	13	2	15.4%
Garfield	10	-	0.0%
Huerfano	3	1	33.3%
Jefferson	60	12	20.0%
Lake	2	2	100.0%
La Plata	5	-	0.0%
Larimer	44	14	31.8%
Las Animas	4	2	50.0%
Lincoln	1	-	0.0%
Logan	1	-	0.0%
Mesa	30	6	20.0%
Moffat	3	-	0.0%
Montezuma	5	1	20.0%
Montrose	8	2	25.0%
Morgan	5	2	40.0%
Otero	3	1	33.3%
Ouray	1	-	0.0%
Pitkin	1	-	0.0%
Prowers	3	1	33.3%
Pueblo	51	14	27.5%
Rio Blanco	2	1	50.0%
Rio Grande	1	-	0.0%
Routt	1	-	0.0%
Saguache	2	-	0.0%
Sedgwick	1	-	0.0%
Summit	2	-	0.0%
Teller	4	1	25.0%
Weld	41	6	14.6%
Yuma	1	-	0.0%
TOTAL	**818**	**199**	**24.33%**

*34 of 64 counties were sampled throughout the year for SNAP CAPER

Figure 38 - Food Assistance CAPER by County from October 2015-September 2016

4.1.6 Case Accuracy Rate

Similar to SNAP's CAPER measure, Adult Financial and Colorado Works capture the same measure: CAR. Currently, the case accuracy rate is a pass/fail rate meaning that

if all elements were correct, the case accuracy rate would be 100%; however, if even one element is missed the entire case is considered inaccurate and the case accuracy rate established for that case is zero%. The CAR findings below for Adult Financial and Colorado Works reflects this current process. Detailed CAR measures by County are provided in Appendix L.

Note: The State of Colorado's Economic Assistance Quality Assurance team (EAQA) is undergoing a process to change the way the state captures CAR, detailed in section 4.1.7.

County	Total Cases Reviewed	Cases with Findings	Case Accuracy Rate % (>75%)
Adams	25	22	12.00%
Arapahoe	31	21	32.26%
Boulder	17	15	11.76%
Broomfield	4	4	0.00%
Clear Creek	2	0	100.00%
Conejos	1	1	0.00%
Costilla	2	2	0.00%
Crowley	2	1	50.00%
Delta	3	3	0.00%
Denver	122	94	22.95%
Douglas	4	3	25.00%
Eagle	1	1	0.00%
Elbert	1	1	0.00%
El Paso	35	28	20.00%
Fremont	3	3	0.00%
Garfield	3	3	0.00%
Grand	1	1	0.00%
Huerfano	2	1	50.00%
Jefferson	26	22	15.38%
La Plata	2	1	50.00%
Larimer	11	10	9.09%
Las Animas	1	1	0.00%
Logan	1	1	0.00%
Mesa	9	6	33.33%
Montezuma	4	4	0.00%
Montrose	2	2	0.00%
Morgan	1	1	0.00%
Otero	15	10	33.33%
Phillips	1	0	100.00%
Prowers	4	4	0.00%
Pueblo	29	22	24.14%
Rio Grande	1	1	0.00%

Saguache	2	2	0.00%
Weld	15	8	46.67%
State Totals	**383**	**299**	**21.93%**

*Only 34 of the 64 counties were sampled during this State fiscal year

Figure 39 – Adult Financial CAR by County from October 2015-September 2016

The Case Accuracy Rate (CAR) for Adult Financial was 21.99%, falling short of the 75% target. However, with the implementation of the new tracking process, it is highly likely the CAR will be substantially closer or above the 75% threshold.

County	Total Cases Reviewed	Cases with Findings	Case Accuracy Rate % (>75%)
Adams	10	8	20.00%
Alamosa	4	3	25.00%
Arapahoe	19	12	36.84%
Archuleta	1	1	0.00%
Baca	1	1	0.00%
Boulder	5	3	40.00%
Costilla	2	2	0.00%
Denver	44	31	29.55%
Douglas	1	0	100.00%
Eagle	1	1	0.00%
El Paso	43	21	51.16%
Fremont	3	1	66.67%
Jefferson	12	6	50.00%
La Plata	2	0	100.00%
Larimer	11	5	54.55%
Las Animas	3	2	33.33%
Logan	1	1	0.00%
Mesa	9	2	77.78%
Montrose	3	0	100.00%
Morgan	1	1	0.00%
Otero	5	4	20.00%
Park	2	2	0.00%
Phillips	1	1	0.00%
Prowers	2	1	50.00%
Pueblo	20	8	60.00%
Rio Grande	3	1	66.67%
Washington	1	0	100.00%

Weld	9	1	88.89%
State Totals	**219**	**119**	**45.66%**

*Only 28 of the 64 counties were sampled during this State fiscal year

Figure 40 - Colorado Works – TANF CAR by County from October 2015-September 2016

The Case Accuracy Rate (CAR) for Colorado Works – TANF was 45.66%, falling short of the 75% target by 29.34%. This rate will be more accurately tracked in SFY18 with the new process outlined below.

4.1.7 New CAR Process[5]

The new process to measure CAR became effective for FFY17 (October 2016 – September 2017). It was introduced with the implementation of the new EAQA database which has increased capability to track and compare the number of core eligibility criteria that were correct for each case to the total number of elements reviewed.

The denominator for each case review type is outlined below:

- Adult Financial AND: 35 core eligibility criteria
- Adult Financial OAP: 32 core eligibility criteria
- Colorado Works 2%: 33 core eligibility criteria
- Colorado Works child-only: 22 core eligibility criteria
- Colorado Works work eligible: 32 core eligibility criteria

The calculation would have a numerator of the total correct core eligibility criteria and a denominator of the total core eligibility criteria [Correct Core Eligibility Criteria] / [Total Core Eligibility Criteria].

Effective FY17, the State proposed transitioning to the new case accuracy rate and a new case accuracy rate goal of 97%. They plan to have the new measure included with the November 2016 Monthly Report and previous reports and C-Stat data updated with the change.

[5] Proposal to Change the EAQA Case Accuracy Rate Measure. April 25, 2017.

4.2. County Activities and Times

To get a better understanding of county activities as they relate to the administration of public benefit assistance programs as well as the time required to perform these tasks, a detailed analysis of county business processes and procedures has been conducted that informed the design and creation of the Survey and the Activity Dictionary described in Section 3. The data received through survey submissions allowed for a detailed assessment of county activities and times and was further validated by observations made during the county visits. It should be noted that variances in the time it takes to process a case and perform additional activities in each county can be a direct result of a number of varying practices and processes among the different counties.

Data Inputs

The analysis of county activities and times was based on 1,749 survey responses from the nine counties, which included:

- Case processing activities
- Supporting activities
- Staff role and experience levels
- Qualitative responses

The breakdown of county activities into two categories—those that are directly and indirectly related to case processing, described in Section 3—is shown in the chart below.

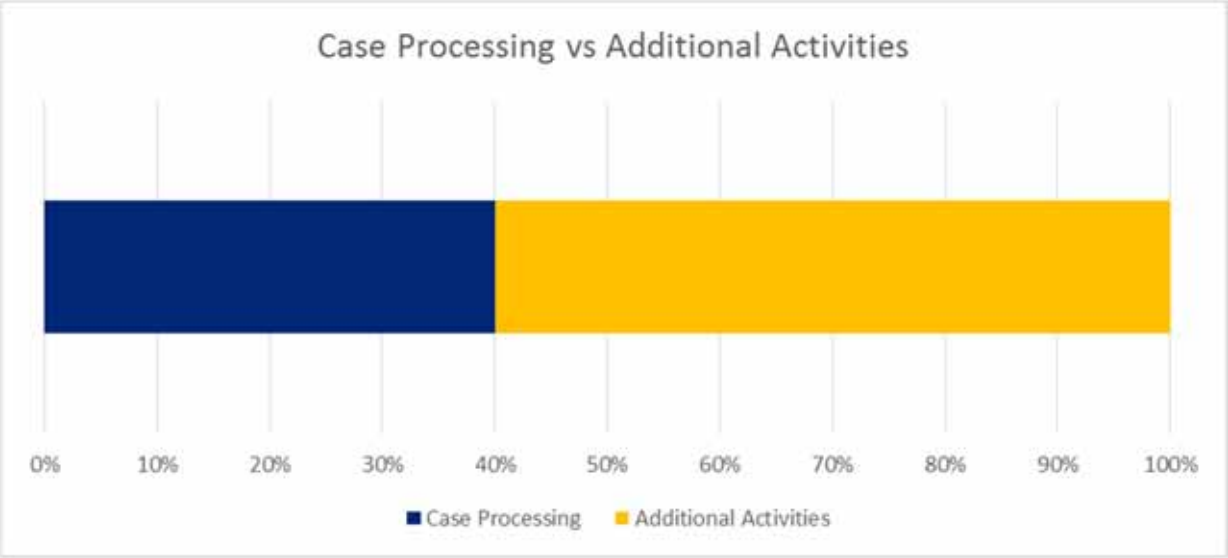

Figure 41 - Case Processing vs Additional Activities

According to the calculation, of the total time spent on the administration of public benefit assistance programs, 40% is spent directly on case processing activities while 60% is dedicated to additional activities that support the seven programs in the study. A detailed view of all county activities performed by the staff is shown in the bar chart below.

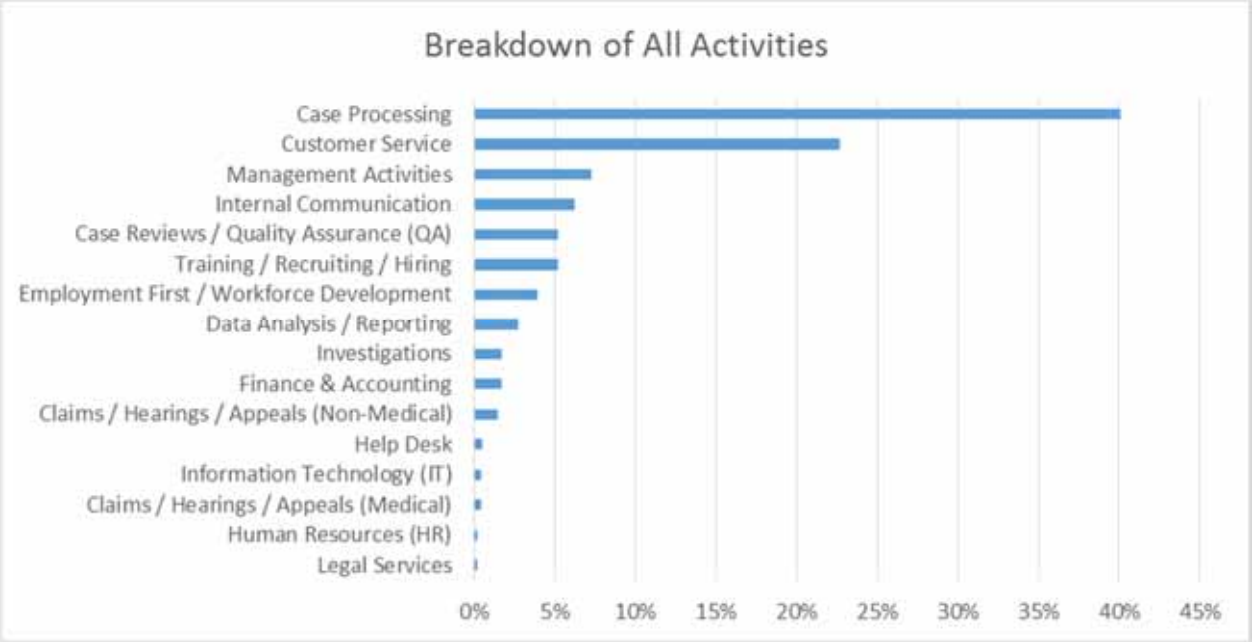

Figure 42 - Breakdown of All Activities

To get a better understanding of how individual counties spend their time, Figure 43 below provides a graphical representation of the breakdown of all activities for each county. More detail is provided in Sections 4.3.1-4.3.4 to explain similarities and variances in county activities and times.

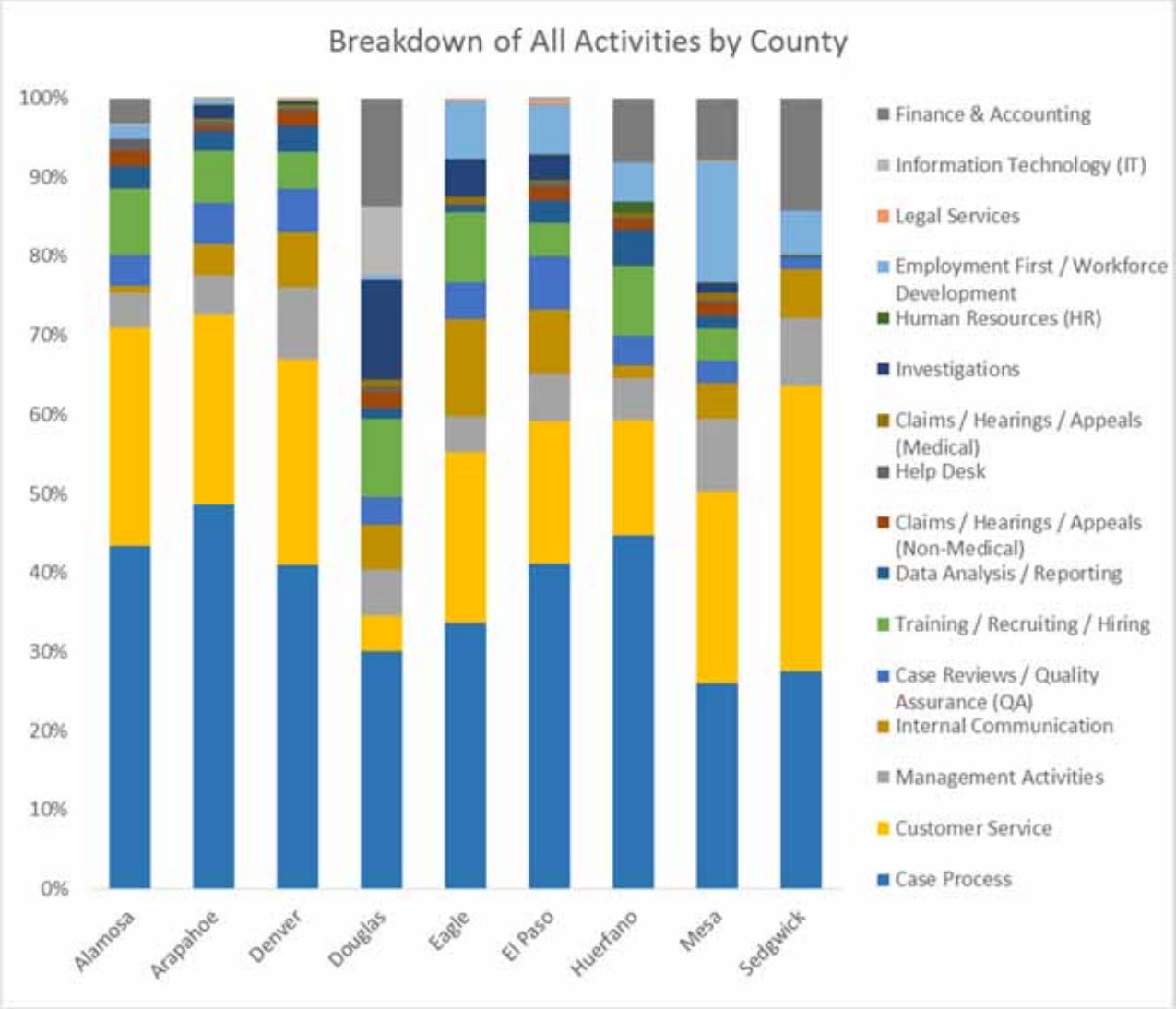

Figure 43 - Bar Chart of Time Spent on All Activities by County

In the following subsections, the report will take a deeper dive into the activities shown above and will provide greater detail around case processing times by county, case type, case source, and programs, as well as examine how counties spend time across all the additional activities.

4.2.1 Case Processing Time by County Size

Figure 44 below shows application processing time for new applications, RRR, and a case change in small, medium, and large counties. As this chart shows, while medium and large counties are relatively similar in processing times for new applications and case changes, small counties take 10-15 min longer to process both. One potential reason to explain the differences is that small counties usually do not have a dedicated customer service unit or administrative support that would normally assist with caseload

management, case pre-work, and information gathering. As a result, these activities get incorporated into case processing, which in turn increases the time spent per case. In addition, small counties often lack technological resources and rely heavily on manual processes that can slow down processing times. With that said, small counties appear to be faster at processing RRRs, although it should be noted that Sedgwick was the only small county in the study and only four RRR cases were worked in this county in the two days of activities recording, which represents a very small sample. It should also be noted that case processing does not always mean case completion, so the actual time to process and authorize a case may be slightly longer than the numbers indicate.

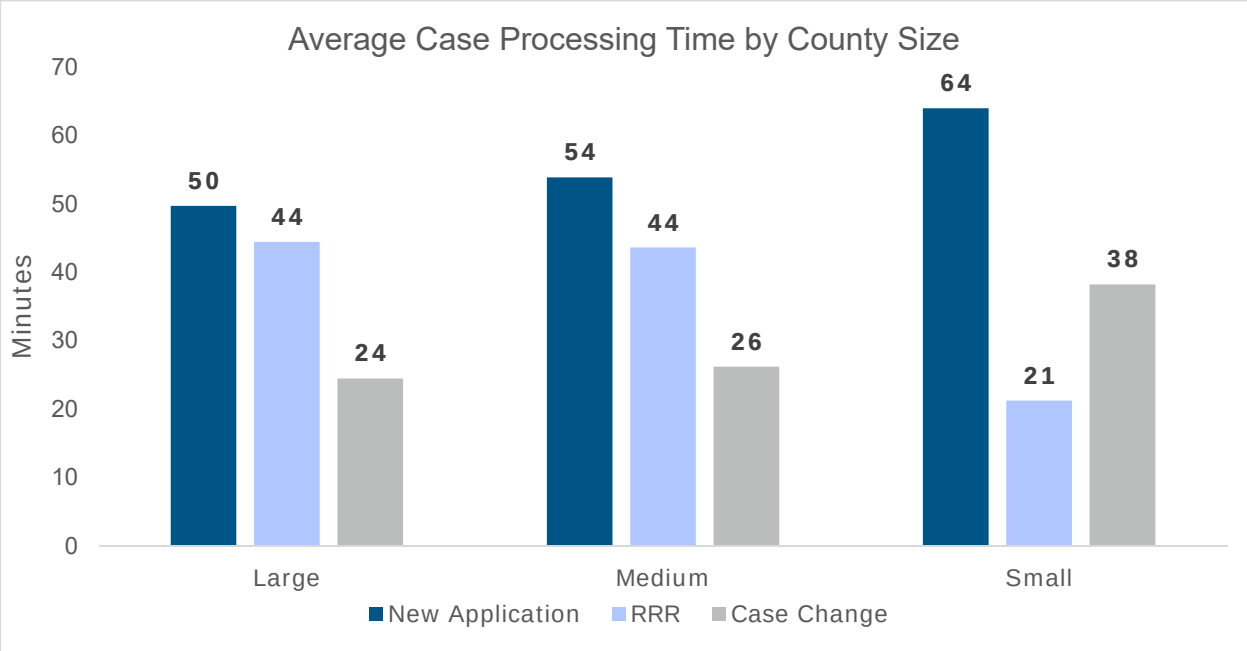

Figure 44 - Average Case Processing Time by County Size

This information is broken down further in the next chart that shows average case processing times for new applications, RRRs, and case changes in each county. This county to county comparison also highlights opportunities for some counties to improve their case processing times to match their peers with similar caseload numbers. For example, among large counties, Arapahoe has the fastest new application processing time and El Paso has the fastest RRR processing. Even small improvements in case processing times for the remaining counties can have a tremendous impact on overall State performance.

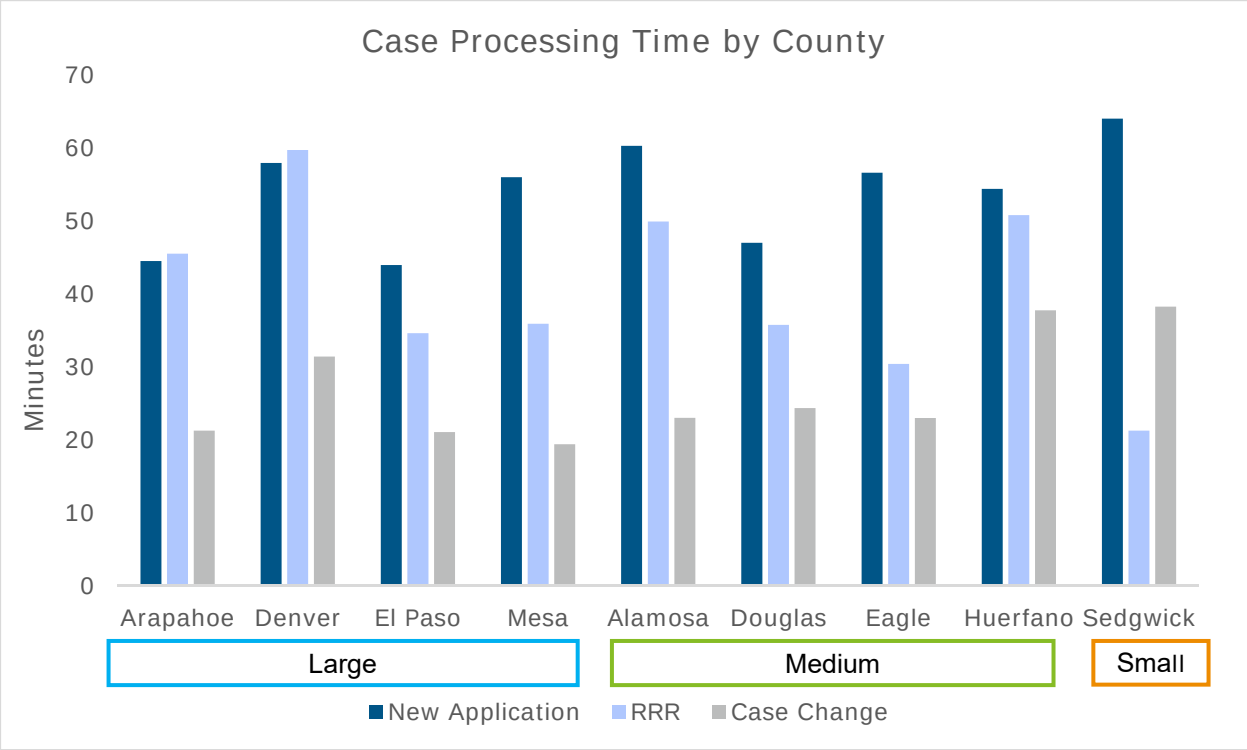

Figure 45 - Average Case Processing Time in Each County

The difference in case processing times among small, medium, and large counties is further validated by qualitative data gathered through county observations. These observations showed that medium and large counties often benefited from established and more efficient business processes, greater availability of human resources, and better access to electronic workload management systems, all of which could contribute to faster case processing. In addition, larger counties also benefited from economies of scale, specialization, and automation. For example, Denver and Arapahoe counties have entire units dedicated to providing customer service to clients that addresses many pre-case processing activities, such as intake and entry of basic client information and assistance with client queries. This pre-work not only helps the client to collect all the necessary documentation and be ready to meet with an eligibility worker, but also speeds up the actual case processing time. On the contrary, small counties tend to have very few staff who are also responsible for multiple activities outside of case processing and tasks that are beyond the scope of this study, such as assistance with child welfare and child support cases. Low staff numbers also mean that small counties do not have the flexibility of having separate functional units assist with case and client preparation ahead of formal case processing. Lack of automation in workload management further contributes to slower processing times for small counties.

In addition to comparing processing times by county, Figures 44 and 45 above also indicate that for almost all counties, with an exception of Denver, new applications are more time-consuming than RRRs and case changes. This is consistent with the

observations made during county visits and interviews, indicating that new applications often take longer because they require creation of a brand new case in the system, gathering of all client information, including data validation and collateral calls, the interview process, as well as explanation of benefits to the client. While RRRs may require many of the same steps, such as documentation gathering and verification, some of the initial steps used in new applications may not be required in these types of cases, which explains shorter average processing times for RRRs. Despite this, counties expressed concern that RRRs often present a challenge due to an ever-increasing number of applications that must be recertified every year or at differing frequencies. As the number of new applications grows, so does the volume of RRRs. Case changes, on the other hand, take significantly shorter to process given that most changes submitted by clients are often minor, such as address change, and do not require case rework.

4.2.2 Case Processing Time by Case Source

Case processing times can also vary depending on the source of application. Clients can either submit an application through PEAK or through a non-PEAK method which can include drop offs, mail, or in-person applications. Based on survey submissions, eligibility staff worked on 6,532 non-PEAK cases and 1,525 PEAK cases, constituting an 81% /19% split respectively. Approximately 29 percent of PEAK applications from the nine study counties do not pass real-time eligibility, necessitating further work from eligibility staff.

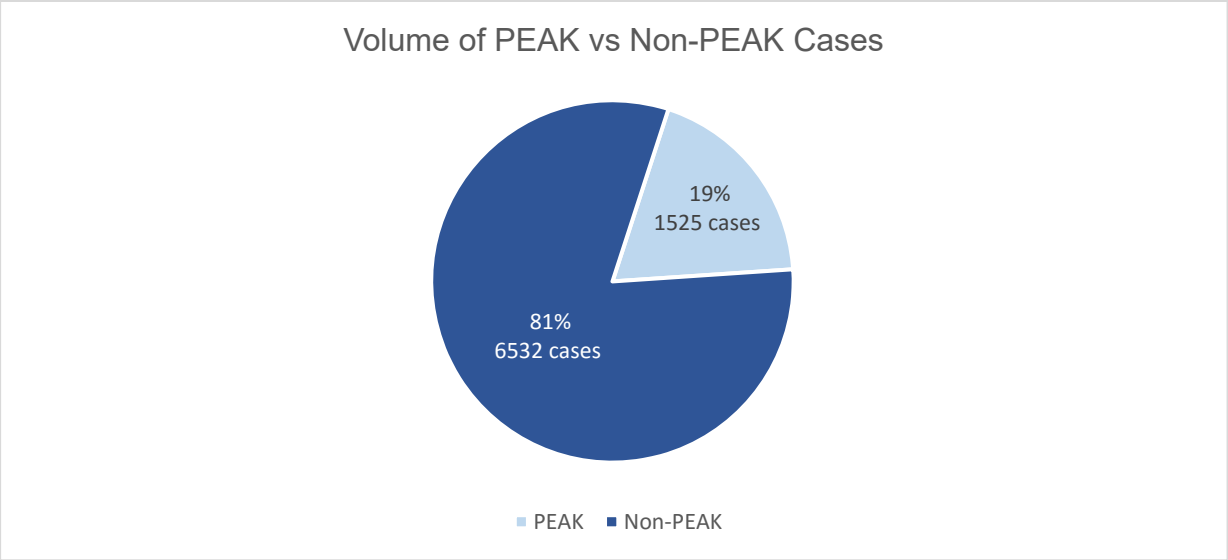

Figure 46 - Volume of PEAK vs Non-PEAK Cases

The following chart shows average processing times for PEAK and non-PEAK cases broken down by county size and case type.

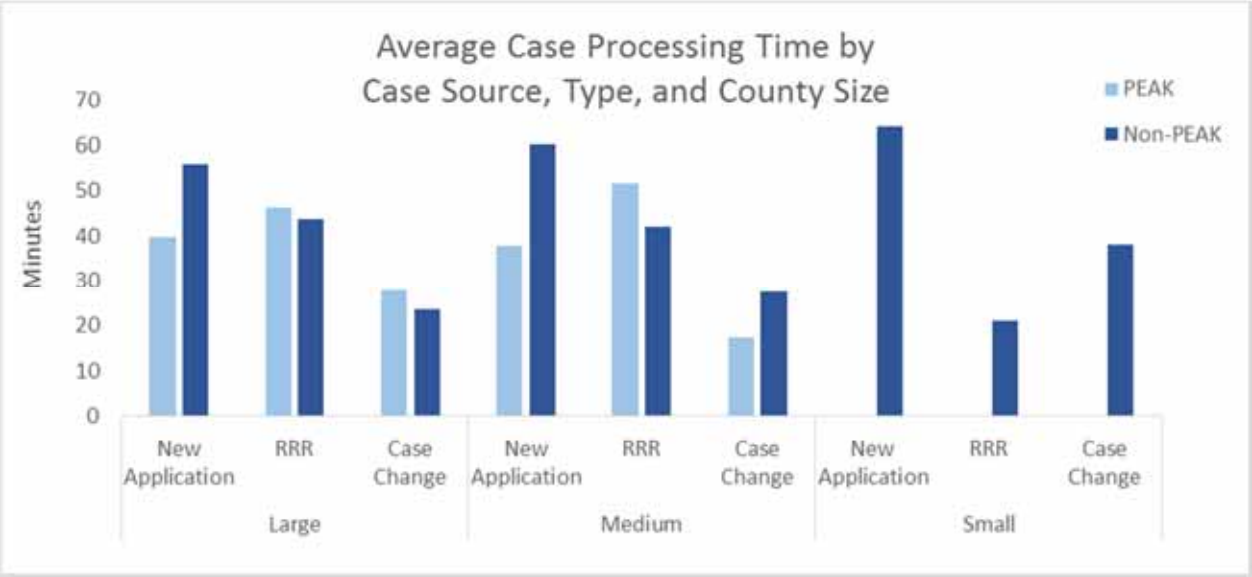

Figure 47 - Average Case Processing Time by Case Source, type, and County Size

According to the chart above, in large and medium counties, new applications that came through PEAK take less time to process than non-PEAK new applications. This could occur because when processing PEAK applications, eligibility workers do not have to collect and enter all client information from scratch and can instead rely on pre-filled application that came through the system. When it comes to RRR, however, PEAK cases take nearly the same or slightly longer to process than non-PEAK cases. This could occur for two reasons—first, when processing RRR cases, eligibility workers do not need to collect all new information regardless of whether it's a PEAK or non-PEAK RRR and second, there could be client confusion about how to submit a PEAK RRR, which may contribute to duplicate or incorrect online submissions and require additional staff time to correct.

When analyzing case changes, PEAK changes in large counties take longer to process than non-PEAK changes, while it's the opposite in medium counties. This could be a result of different business processes for treating PEAK cases that are utilized at medium and large counties. For Sedgwick County, comparison of PEAK and non-PEAK processing times was not possible because no PEAK applications were recorded in the two days of survey submissions. This is consistent with county observations for less urban places where most case submissions are done either in-person or by mail, but not usually online. This could be due to limited broadband and limited access to the internet in remote areas, as well as a lack of client understanding of online systems and limited technical skills. To provide an additional layer of information, average case processing time for PEAK and non-PEAK cases is broken down further by case type for each county in the bar chart below.

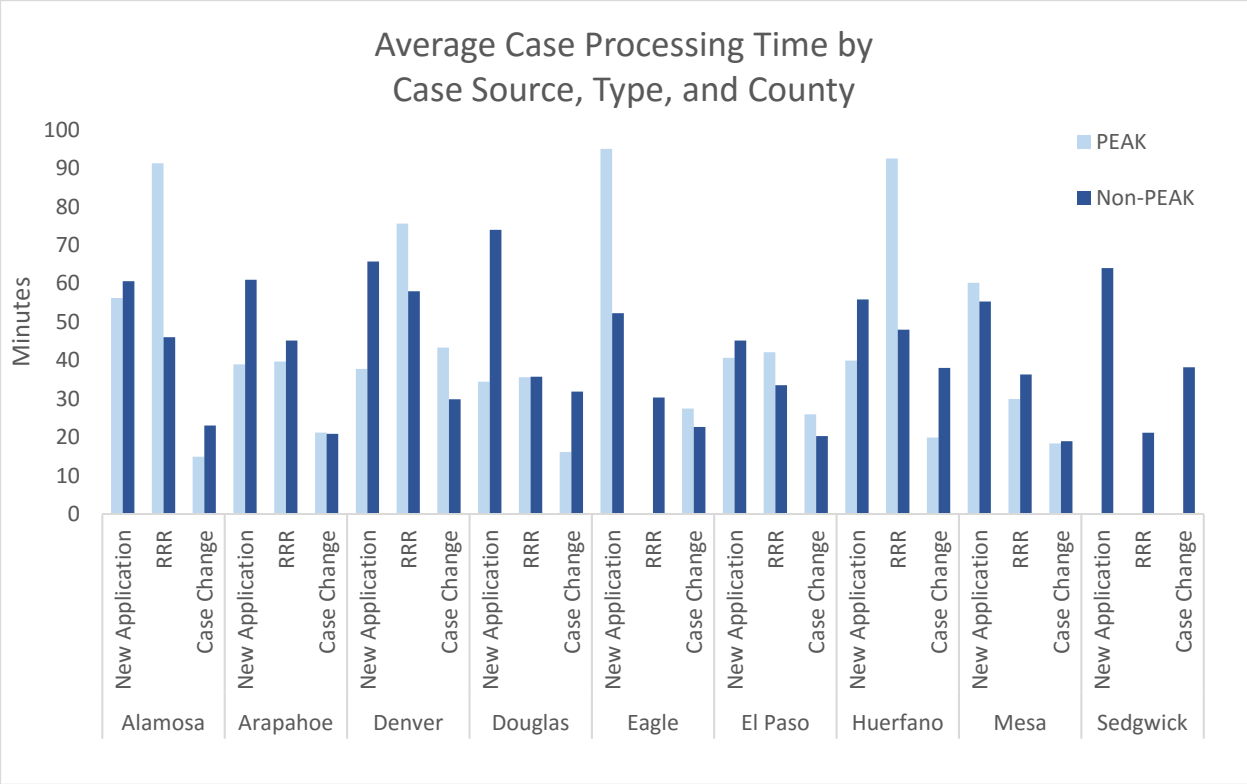

Figure 48 - Average Case Processing Time by Case Source, Type, and County

4.2.3 Case Processing Time by Program(s)

While average case processing times vary by case source, type, and county as examined in the two preceding charts, they also differ by program such as MA, SNAP, TANF, CHP+, AND, OAP, LTC. The majority (57%) of the cases are not single-program and include multiple programs in the case. Before assessing how much time it takes to process a case involving a single program or different program combinations, it is important to evaluate what single or multiple-program cases are processed most frequently. There were in total 36 combinations of programs recorded in survey responses, however, only the most common combinations of programs are visually depicted in this report. The full data on the 36 program combinations will be supplied to the State at the conclusion of the contract.

The survey data showed that in the two days of activities tracking, 8,057 cases were worked that included 42 variations of single and multiple-program cases. The pie chart below (Figure 49) indicates what percentage of 8,057 cases included only one program and two of the most frequent combinations of programs (i.e., MA & SNAP, and MA, SNAP, & TANF).

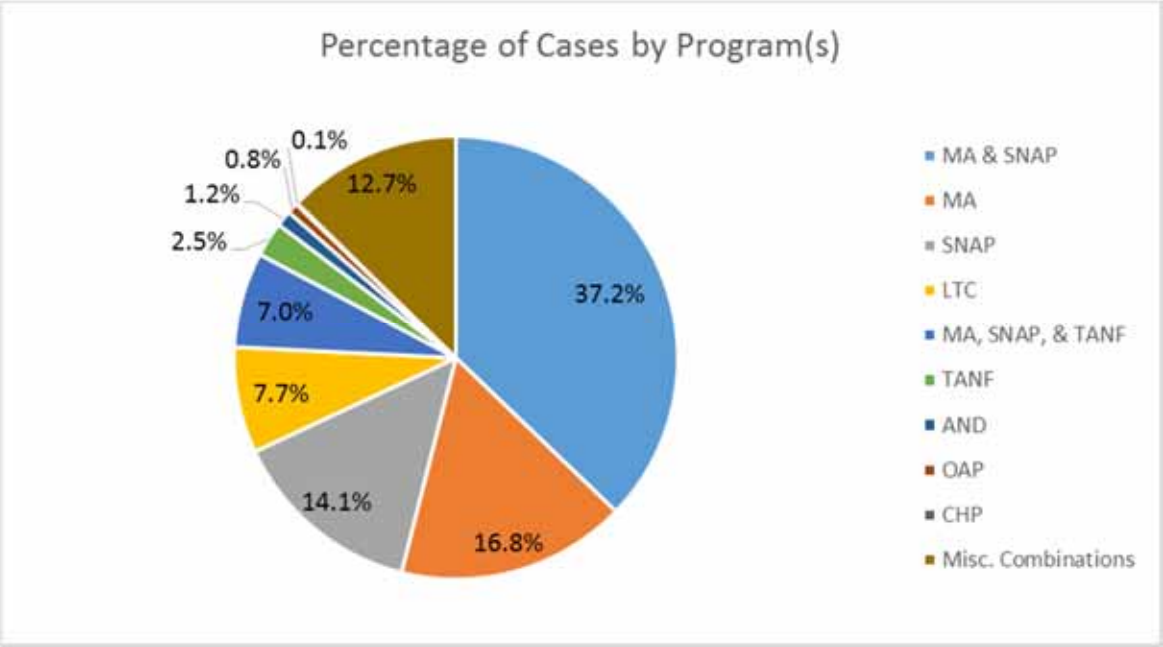

Figure 49 - Percentage of Cases by Program(s)

As presented in this chart, more than a third of all cases included an instance where a client applied for both MA and SNAP—there were a total of 2,996 of such cases. The second most frequent type of case included MA-only applications at 16.8% or 1,351 cases, followed by SNAP-only applications at about 14% or 1,135 cases. Cases that included other single programs or other combinations of programs were significantly less frequent. It is not surprising that cases involving MA and SNAP were the most common types of cases, given the emphasis of county departments to meet the growing demand from the public for medical assistance. This is also consistent with the fact that 74% of program funding comes from MA and SNAP.

Having a better understanding of the most and least frequent types of cases by program, it is important to assess how much time it takes on average to process a case that includes only one of the seven programs or a combination of programs. The bar chart below (Figure 50) provides a graphical representation of this information.

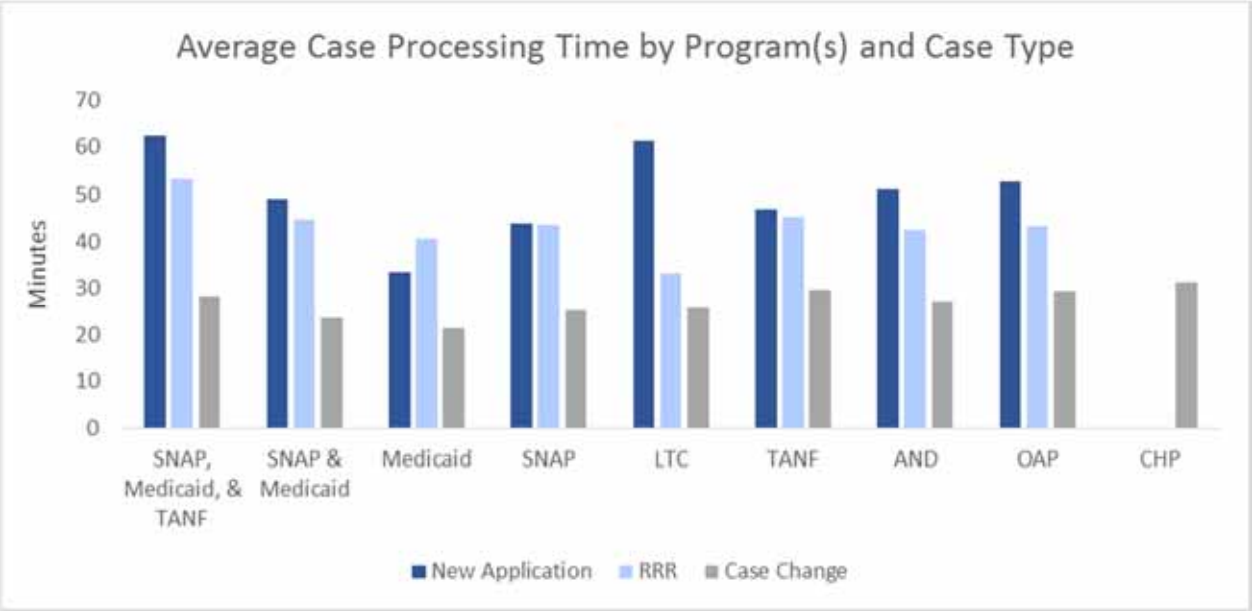

Figure 50 - Average Case Processing Time by Program(s) and Case Type

The most common multiple-program applications, those that involve all three programs—MA, SNAP, and TANF—take the longest to process, given that eligibility workers may need more time to collect, verify, and process all the necessary information required by each of the three programs. Following that same reasoning, when a case only includes MA and SNAP, staff spend approximately 5 minutes less to process the case. When a case includes only a Medical Assistance application, processing time is shortened significantly—down by 11 minutes on average. This is in large part due to the fact that in-person interviews are not required for MA cases, which significantly decreases an eligibility worker's time to process an MA case. In addition, client statements in MA cases are sufficient sources of verification and do not require paper documentation. This speeds up processing of MA cases even further. Lastly, given that most MA applications come through PEAK, most information comes pre-filled by the client, which decreases the time spent by an eligibility worker processing the case. There are instances, however, when MA PEAK applications do not pass real-time eligibility and have to be worked by a technician – in this scenario, some county workers choose to manually enter client information to avoid importing potentially incorrect client data. This process may result in longer processing time for these specific PEAK applications. The rest of the cases including single-program applications take on average the same amount of time to process. It should be noted again, however, that these case processing times include new applications, RRRs, and case changes that may take varying amounts of time to work through. No new CHP+ applications or RRRs were recorded during the survey.

As shown in this graph, MA, SNAP, and TANF combined cases take approximately an hour to process new applications and roughly 50 minutes to process RRR. With the exception of LTC, the rest of single and multiple-program cases take between 40 and

50 minutes to process a new application and an RRR. Case changes take significantly shorter time to process across the board for all types of programs.

4.2.4 Additional Activities

As mentioned earlier, 60% of staff time is spent performing all activities outside of case processing. Figure 51 below shows the breakdown of all the additional activities that indirectly support the administration of public assistance programs and provides a level of clarity into which of these activities are most or least time-consuming. The bar chart below lists these activities in the order from most to least resource demanding (this chart is similar to Figure 42, but excludes case processing).

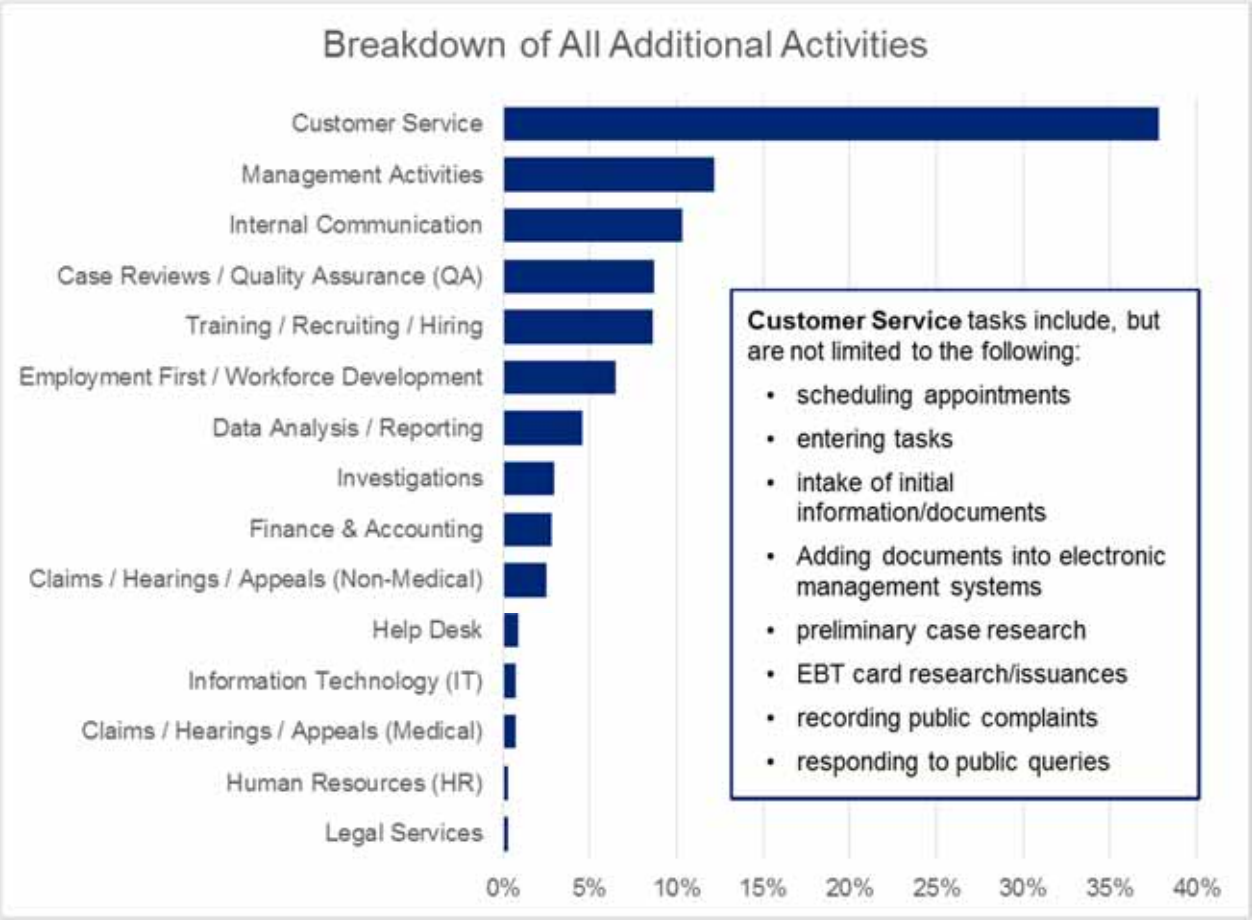

Figure 51 - Breakdown of All Additional Activities

As this bar graph shows (Figure 51), staff spends significantly more time providing customer service than working on any other additional activity. Of the total time spent on additional activities, staff dedicates approximately 40% of their time to customer service. The reason that customer service makes up the largest portion of additional activities is because it encapsulates tasks that are strongly related to case processing. Customer service includes a variety of activities and tasks that include, but are not limited to: scheduling appointments, entering tasks, intake of initial information / documents,

adding customer documents into electronic management systems, preliminary case research, EBT card research / issuances, recording public complains, responding to public queries, and serving customers in lobbies and call centers. These activities are an important component in providing effective and efficient administration of public benefit assistance programs because of their direct impact on the client. This is validated by observations made during county visits, where large counties like Denver have entire units dedicated to customer service related tasks.

The next four most resource-demanding activities are also highly correlated with high quality case processing and therefore show a larger portion of staff time dedicated to them. For example, management activities and case reviews play an important role in meeting timeliness and accuracy goals, by requiring random case checks for all eligibility workers and especially for new technicians who may be more prone to error. In addition to case reviews and management activities, recruitment and training directly influence staff readiness to process cases efficiently and effectively. This is why aside from State-provided training, counties also supplement knowledge-building with their own county-specific training materials. Lastly, internal communication is crucial for building alignment on goals and milestones that eventually impact the success of these public assistance programs.

Although these top additional activities are important, they take time away from the primary task of processing cases. This is specifically highlighted for customer service, which takes up the largest portion of staff time outside of case processing. While customer service is an essential part of operations, county observations showed that inefficiencies may exist in how customer service is handled. For example, counties expressed concern that clients do not always understand correspondence sent to them and staff spend a large portion of their time on continuous calls with the client to explain the correspondence, which may be confusing even to a veteran eligibility worker.

Some counties that have call centers use a rotating system to answer phone inquiries, where all eligibility staff dedicate specific days to handle calls. Some counties even have their most seasoned eligibility workers work the call center. While these seasoned professionals may have the knowledge to answer any call that may come from a client, they do end up responding to some very basic questions from clients that could be handled by a lower level technician. This process takes away precious time from experienced eligibility workers who can potentially have greater impact processing more challenging cases instead of dedicating their time to lower level customer service activities. The rotating call center system also prevents staff from specializing in their specific task, whether processing cases or responding to basic queries, which leads to greater inefficiencies and high customer service times.

To understand how the additional activities are allocated in different counties, the bar chart below (Figure 52) shows the breakdown of all additional activities for each county (this chart is similar to Figure 43, but excludes case processing.)

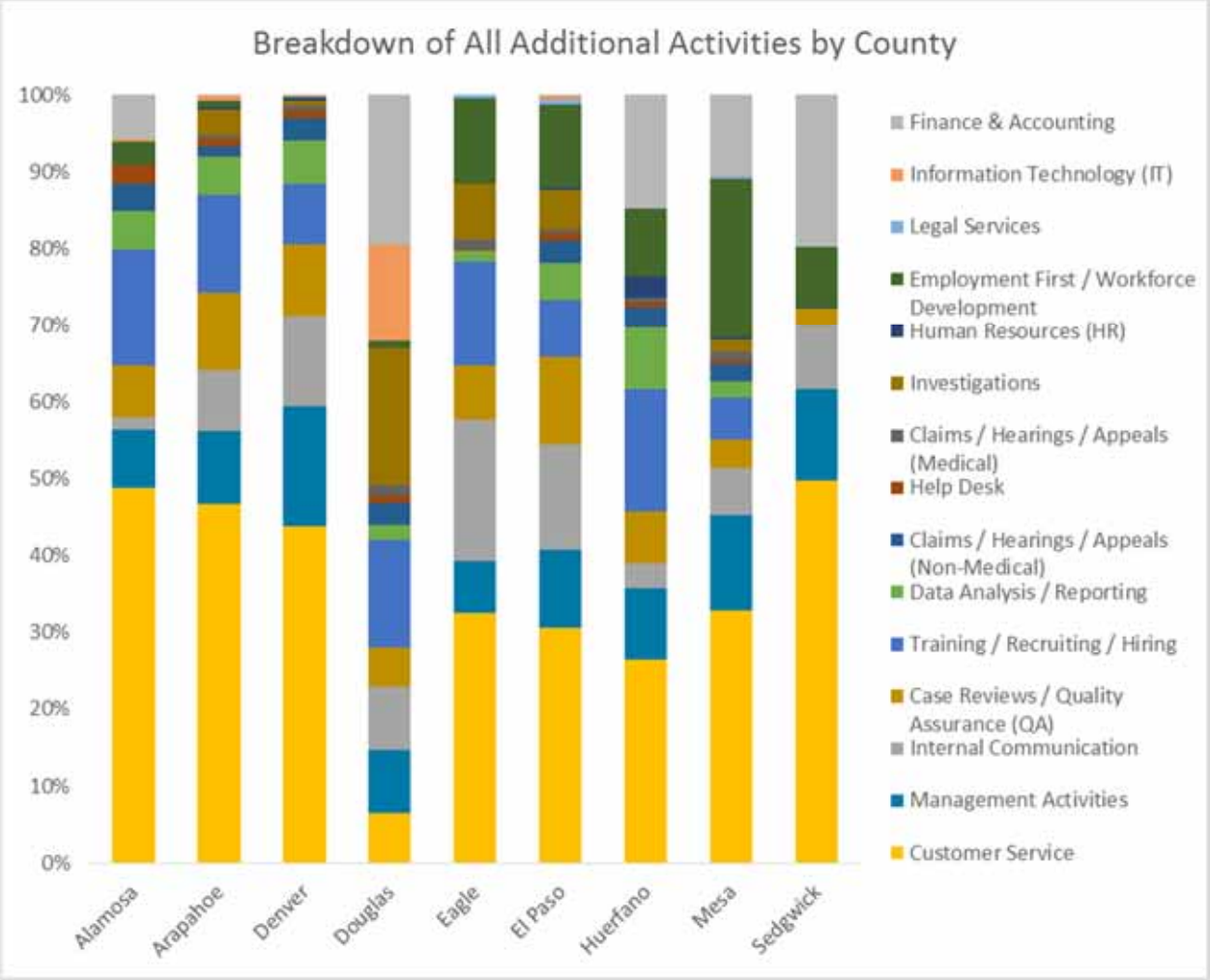

Figure 52 - Breakdown of All Additional Activities by County

What stands out in this chart is that customer service is significantly lower for Douglas County than for others. This can be explained by the fact that Douglas County has a separate customer service unit that is contracted out and did not take the survey. In addition, time allotted to support functions such as Finance and Accounting, IT, Legal, and HR vary by county because of differences in how county processes are structured and responsibilities are shared. In some counties these functions are performed by county staff who support several different departments and these staff did not take the survey. As a result, cost per case for each county may vary purely based on the county's business model and cost structure, and does not always give an indication of relative efficiency.

4.3. Administrative Work Delays

Data Inputs

Assessment of administrative work delays was based on the following data inputs:

- County observations
- Staff interviews
- County-reported activities that have resulted in a backlog

As described in the preceding section, county staff spend the vast majority of their time processing cases and working on additional activities to provide public benefit assistance to all eligible Coloradans in a timely manner and with minimal error rates. While counties work to meet these performance goals, some experience administrative work delays that have resulted in a backlog. To get a better understanding of the work not yet completed and to assess the causes of delay, counties shared their status in handling the outstanding workload and offered insight into some of the challenges that contributed to the delay at the time of the study in early 2017. While the analysis of the backlog provides insights into the types of work that result in a delay, the study could not determine how much completing the backlogged work would cost due to differences in how counties evaluate backlog, the time required to process the backlog, and the salary levels of the staff doing the work. In addressing the issue of administrative work delays, HCPF provides financial incentives to counties to encourage completion of backlogged tasks.

4.3.1 Reporting

One of the most common areas where counties struggled to meet county or state deadlines was in the processing of reports. There are more than a dozen reports that counties need to review at various frequencies to stay current on their administrative workload. The reports that most contribute to the delay are Public Assistance Reporting Information System (PARIS) report, the Cost of Living Adjustments (COLA) exception report, and the Income Eligibility Verification System (IEVS) discrepancy report. The PARIS report is conducted on a quarterly basis, the purpose of which is to help improve program integrity by identifying clients receiving public assistance in more than one state. The COLA report is done on an annual basis to confirm that benefit allowances grow in accordance with the Consumer Price Index. Lastly, the IEVS report highlights discrepancies between reported and actual wages and is updated monthly.

On average, it takes between 30 minutes to an hour for an eligibility worker to draw a case from a queue, research, and take action on a case highlighted in each report. For medium counties in the nine county study, the backlog for unworked reports is estimated at more than 200 hours, which has been consistent for the past six months. For large counties in the nine county study, the delay is much longer, estimated at more than 4,000 hours, given the volume of cases handled. Due to lower case numbers in smaller counties in the nine county study, reports processing is relatively timely, although some of these small counties experience delays with IEVS. The study counties expressed that the vast majority of COLA work comes in a batch close to the end of the calendar year, causing a challenge for counties to increase staff temporarily in order to handle large quantities of seasonal work. The study counties expressed that the most

common causes of delay for case processing were insufficient time to handle the work and complete tasks, the large volume of reports that must be analyzed to see if action needs to be taken, and competing priorities for ad hoc reports required by the state to be completed within short deadlines.

4.3.2 Document Verifications

Outside of reports, document verifications and client correspondence further contributed to administrative work delays. Document verifications can be challenging because clients do not always provide all the information, and the responsibility falls on eligibility workers to seek out avenues to collect the necessary data. Collateral calls, for example, can require several tries until eligibility workers are able to get in touch with someone who can verify client-reported information, such as wages or place of work. In addition, staff also expressed that the Department of Labor and Employment (DOLE) does not always have the correct record of employment for an individual and additional efforts and time may be required to verify the documentation. Counties expressed that delays in verifying documents can direct staff attention away from the priority of timely processing of cases, and that staff must balance the two efforts.

4.3.3 Client Correspondence

Similarly, client correspondence—either in the form of unreturned calls, emails, or returned mail—results in a significant backlog. The impact of these delays varies depending on the volume of cases processed and existing businesses processes. For example, some small counties reported being behind on 40% of their returned mail requiring customer contact and 30% of client correspondence requiring a phone call. Medium counties reported having approximately 1,000 pieces of returned mail from 2016 requiring an action and close to 700 unanswered calls, while large counties reported receiving up to 500 of returned mail per day. Similar to delays with report processing, counties expressed that they do not have enough time and resources to address this backlog given the competing priorities. One county added that they experienced CBMS issues with how addresses are printed on client correspondence, potentially resulting in issues with mail delivery.

4.3.4 Training and Turnover

Outside of these delays, high staff turnover in some counties including those situated in more affluent areas with better job alternatives, further contributed to challenges experienced by counties. Given long periods of training that are needed to achieve proficiency as an eligibility worker, high turnover could cause interruptions and eventually lead to greater administrative work delays. More details about challenges with training and high turnover are provided in Section 6.1 of the report.

4.4. County Costs per Activity and Cost Variances

The TD/ABC model produced the total costs per activity and costs per case for the nine pilot counties, including costs incurred for each county relating to each activity and program or client. This section describes the types of costs incurred, costs by activity, and cost per program.

Data Inputs

- Colorado Benefits Management System (CBMS) program volume metrics
- Colorado Financial Management System (CFMS) cost data
- Survey results from this study

The cost basis of the model includes all costs for calendar year 2016 that the nine counties reported into CFMS. These costs include direct and indirect expenses on all case processing, additional, and other activities as defined in the county survey. While the study only took into account costs for the seven programs in the study, some counties had several staff performing activities for a few outside program. Thus, while 98% of the nine county administration costs reported into CFMS were strictly for the seven programs in our study, 2% were coded to programs outside of the study, such as Employment First/Workforce Development, LEAP, and Child Welfare/Child Support. Inclusive of these additional programs, the nine counties in the study recorded spending a total of $68,601,360 in the 2016 calendar year. Figures 53-57 show the breakdown of these total costs. Excluding the 2% coded to outside programs, the nine counties spent $67,198,319 in CFMS reported costs. However, when applying survey activity times from this study and analyzing them against the nine county administration costs only for the seven programs in the study, the cost model results show that the nine counties spent a total of $60,899,423. Other costs were directed according to costs and time reported to programs outside the scope of this study, such as Low Income Energy Assistance Program (LEAP) and Child Support Services. Figures 58-74 show an in-depth analysis of the nine county costs for the seven programs only.

For the purposes of the model, Deloitte loaded each of the nine counties with costs according to the reported accounts so that the analysis began on a footing consistent with what the counties reported. In Figure 53, the analysis of the total nine county administration costs and appropriated costs, inclusive of the programs outside of the seven in this study, shows that the three largest counties account for 86% of the overall costs for the nine counties. Of the $68,601,360, Denver reported 48%, El Paso 22%, and Arapahoe 16%.

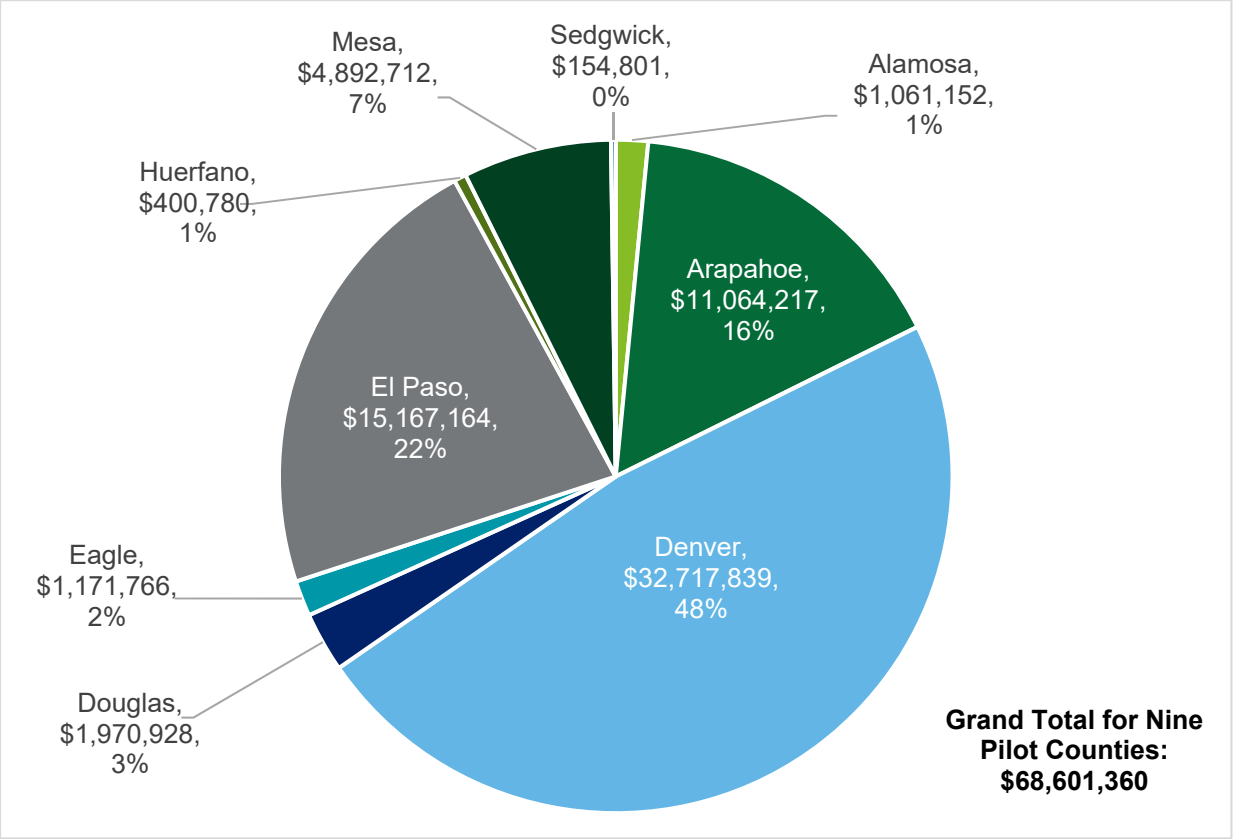

Figure 53 – Total CFMS Reported Costs for Nine Pilot Counties Inclusive of Programs Outside of the Seven

Figures 54 and 55 below show the breakdown of the total $68,601,360 of CFMS reported costs by cost types, such as personnel costs, services, facilities, supplies, etc. Of these costs, personnel expenses make up the largest portion of county costs with an average of 86% for the nine counties. Large counties attribute 85% of their total costs to personnel, medium counties spent 91%, and small counties 89%. The second largest cost category is for services, though only contributing 9% to total costs, followed by facilities contributing 5%. Deloitte found that contractor costs for medium counties is slightly offset by a $200K reversal of contractor payments in Eagle County in 2016. The mapping between spending categories as reported in CFMS and the spending categories below is given in Appendix J.

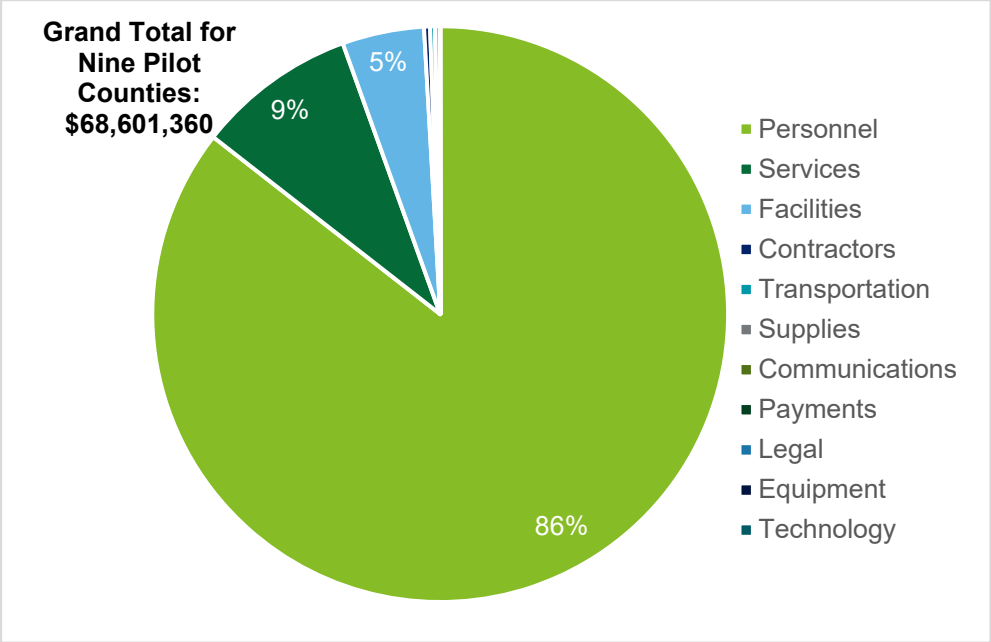

Figure 54 – Percentage of Total CFMS Reported Costs by Cost Type, Inclusive of Programs Outside of the Seven

Cost Type	Large	Medium	Small	Grand Total
Personnel Costs	$54,370,115.01	$4,178,679.06	$137,158.66	**$58,685,952.73**
Services Costs	$5,767,318.63	$370,500.89	$9,045.08	**$6,146,864.60**
Facilities Costs	$3,087,672.01	$61,533.57	$5,494.12	**$3,154,699.70**
Contractors Costs	$283,631.80	($58,092.49)	$0.00	**$225,539.31**
Supplies Costs	$171,960.34	$8,701.75	$26.24	**$180,688.33**
Transportation Costs	$149,916.21	$37,189.99	$3,077.21	**$190,183.41**
Communications Costs	$9,147.34	$1,983.66	$0.00	**$11,131.00**
Payments Costs	$2,148.42	$0.00	$0.00	**$2,148.42**
Technology Costs	$22.29	$620.40	$0.00	**$642.69**
Equipment Costs	$0.00	$1,601.63	$0.00	**$1,601.63**
Legal Costs	$0.00	**$1,907.76**	$0.00	**$1,907.76**
Grand Total	**$63,841,932.05**	**$4,604,626.22**	**$154,801.31**	**$68,601,359.58**

Note: Negative numbers are due to reversals of payments recorded in CFMS

Figure 55 – Total CFMS Reported Costs by Cost Type and County Size, Inclusive of Programs Outside of the Seven

The breakdown of costs is further shown for each of the nine counties in the table below. Across the counties, El Paso has the lowest percentage of personnel costs, with 77%, and Eagle has the highest at 96% (after removing the negative amount in contractor costs). Douglas County, at 76%, has a headcount cap for county employees, and uses contractors for all customer service activities. Most counties bear significant facilities costs, while Douglas and Eagle largely have their facilities costs covered by the county.

Cost Type	Alamosa	Arapahoe	Denver	Douglas	Eagle	El Paso	Huerfano	Mesa	Sedgwick	Grand Total*
Personnel Costs	$960,559	$9,608,070	$28,676,608	$1,497,151	$1,382,452	$11,740,290	$338,517	$4,345,147	$137,159	**$58,685,953**
Services Costs	$44,250	$956,402	$1,722,485	$277,386	$30,260	$2,788,356	$18,605	$300,075	$9,045	**$6,146,865**
Facilities Costs	$26,483	$429,668	$1,998,731	$1,311		$582,622	$33,739	$76,652	$5,494	**$3,154,700**
Transportation Costs	$7,383	$33,768	$52,276	$7,889	$20,056	$48,913	$1,861	$14,959	$3,077	**$190,183**
Contractors Costs	$13,199	$9,824	$266,777	$184,279	($262,992)	$7,031	$7,422	$0	$0	**$225,539**
Payments Costs	$0	($1,714)	$0	$0	$0	($48)	$0	$3,910	$0	**$2,148**
Supplies Costs	$7,056	$28,199	$939	$176	$833	$0	$636	$142,822	$26	**$180,688**
Technology Costs	$620	$0	$22	$0	$0	$0	$0	$0	$0	**$643**
Comms. Costs	$0	$0	$0	$827	$1,156	$0	$0	$9,147	$0	**$11,131**
Equipment Costs	$1,602	$0	$0	$0	$0	$0	$0	$0	$0	**$1,602**
Legal Costs	$0	$0	$0	$1,908	$0	$0	$0	$0	$0	**$1,908**
Grand Total*	**$1,061,152**	**$11,064,217**	**$32,717,839**	**$1,970,928**	**$1,171,766**	**$15,167,164**	**$400,780**	**$4,892,712**	**$154,801**	**$68,601,360**

*Totals may not be exact due to rounding
Note: Negative numbers are due to reversals of payments recorded in CFMS

Figure 56 – Total CFMS Reported Costs by Type across Nine Pilot Counties, Inclusive of Programs Outside of the Seven

Categorization of county spending by fixed and variable costs shows that fixed costs make up between 90-94% of county costs. Douglas and El Paso are the only ones that have slightly lower fixed costs registered at 76% and 81% respectively.

County	Fixed	Variable	Grand Total
Alamosa	$986,160	$74,992	**$1,061,152**
Arapahoe	$10,018,744	$1,045,473	**$11,064,217**
Denver	$30,675,361	$2,042,478	**$32,717,839**
Douglas	$1,499,289	$471,639	**$1,970,928**
Eagle	$1,383,609	($211,843)	**$1,171,766**
El Paso	$12,322,912	$2,844,253	**$15,167,164**
Huerfano	$372,256	$28,524	**$400,780**
Mesa	$4,423,354	$469,358	**$4,892,712**
Sedgwick	$142,653	$12,149	**$154,801**
Grand Total*	**$61,824,337**	**$6,777,023**	**$68,601,360**

*Totals may not be exact due to rounding
Note: Negative numbers are due to reversals of payments recorded in CFMS

Figure 57 - Fixed and Variable Reported Costs by County, Inclusive of Programs Outside of the Seven

As described in the beginning of Section 4.4, figures 53-57 provide a breakdown of the nine county administration and appropriated costs for all CFMS reported costs, including those for programs outside of the seven in our study. When applying activity times strictly for the seven programs and analyzing them in the cost model, the total nine county administration and appropriation cost is equal to $60,899,423. Figures 58-74 that follow in this section provide a detailed breakdown of the cost model results strictly for the seven programs in the study based on activity times reported in the survey for the nine counties. Figure 58 below shows a breakdown of fixed and variable costs by process. Fixed costs (primarily personnel costs) provide the bulk of cost contributions to each of these processes.

Process	Fixed Costs	Variable Costs	Grand Total
New Application	$12,929,627	$1,151,174	$14,080,801
Case Change	$12,040,039	$1,039,940	$13,079,980
RRR	$11,466,806	$981,410	$12,448,216
Case Review / Quality Assurance	$7,967,845	$1,003,064	$8,970,909
Claims / Hearings / Appeals	$6,833,979	$855,992	$7,689,971
Investigations	$4,052,950	$576,595	$4,629,545
Grand Total*	**$55,291,246**	**$5,608,176**	**$60,899,423**

*Totals may not be exact due to rounding

Figure 58 - Fixed and Variable Model Costs by Process

Fully loaded process costs consist of direct county activities that involve case processing and associated activities (i.e., case reviews, claims/hearings/appeals, and investigations) as well as the indirect activities associated with the management and operation of the county DHS offices. Direct county costs by activity show how much in

employee and contractor resources is devoted to the activities in the survey. Figure 59 shows these direct costs broken down by primary and secondary activities. Primary costs were mapped as closely as possible to the primary cost categories given the RFP, described in section 3.3. The greatest proportion of secondary costs comes from customer service activities, which also makes up the single largest share of cost per case.

Activity	Primary	Secondary	Total
Application Initiation	$1,391,063.46		**$1,391,063.46**
Interactive Interview	$7,186,302.86		**$7,186,302.86**
Post Authorization	$2,326,564.06		**$2,326,564.06**
Case Reviews	$3,139,103.76		**$3,139,103.76**
Claims/Hearings/Appeals		$2,265,359.68	**$2,265,359.68**
Customer Service		$17,874,643.29	**$17,874,643.29**
Administration	$7,873.62		**$7,873.62**
Data Analysis/Reporting	$2,762,288.10		**$2,762,288.10**
Facilities (Rent, Utilities, Leases, Maintenance)		$2,762,825.37	**$2,762,825.37**
Finance & Accounting	142302.8958		**$142,302.90**
Help Desk		$771,965.56	**$771,965.56**
Human Resources		$82,193.23	**$82,193.23**
Information Technology		$127,202.50	**$127,202.50**
Internal Communication	$5,755,332.88		**$5,755,332.88**
Investigations	$830,222.57		**$830,222.57**
Legal		$96,885.85	**$96,885.85**
Management Activities	$3,237,491.90		**$3,237,491.90**
Operations Management (Supplies, Equipment, Contractors, Services)		$5,171,345.69	**$5,171,345.69**
Training/Recruiting/Hiring	$4,968,455.77		**$4,968,455.77**
Grand Total	**$31,747,001.88**	**$29,152,421.17**	**$60,899,423.04**

Figure 59 – Primary and Secondary Model Costs Per Activity

While the large counties in the sample of nine pilot counties have a greater amount of overall costs, 52% of their costs are allocated to primary activities. Medium counties attribute 56% of their costs to primary activities, while Sedgwick (the only small county) spends 40% on its primary activities. This cost profile may lead to less flexibility for small counties to shift in response to changing workload.

County Size	Primary	Secondary	Grand Total
Large	$29,567,410.10	$27,384,319.58	**$56,951,729.68**
Medium	$2,132,271.57	$1,698,405.27	**$3,830,676.84**
Small	$47,320.21	$69,696.32	**$117,016.52**
Grand Total	**$31,747,001.88**	**$29,152,421.17**	**$60,899,423.04**

Figure 60 – Primary and Secondary Direct County Costs by Size

The table below shows how direct and indirect costs are split by process in each of the nine counties. Based on this calculation, fully loaded indirect costs (i.e., management, information technology, facilities, and human resources) account for approximately 76% of total process costs.

County	Process	Direct Costs	Indirect Costs	Total Costs*
Alamosa	New Application Processing	$58,991	$89,045	$148,035
	Review/Redetermination	$75,220	$128,171	$203,391
	Case Change	$20,353	$112,418	$132,771
	Case Reviews/Quality Assurance	$45,071	$131,842	$176,914
	Claims/Hearings/Appeals		$150,020	$150,020
	Investigations		$104,639	$104,639
Alamosa Total		**$199,635**	**$716,135**	**$915,770**
Arapahoe	New Application Processing	$1,404,728	$1,394,667	$2,799,396
	Review/Redetermination	$676,138	$988,872	$1,665,010
	Case Change	$419,992	$1,192,641	$1,612,633
	Case Reviews/Quality Assurance	$725,396	$1,418,462	$2,143,858
	Claims/Hearings/Appeals		$1,200,740	$1,200,740
	Investigations	$74,014	$1,003,421	$1,077,434
Arapahoe Total		**$3,300,268**	**$7,198,804**	**$10,499,072**
Denver	New Application Processing	$2,528,805	$5,313,997	$7,842,802
	Review/Redetermination	$1,981,629	$6,154,968	$8,136,597
	Case Change	$1,253,461	$7,240,663	$8,494,124
	Case Reviews/Quality Assurance	$1,097,123	$1,401,056	$2,498,179
	Claims/Hearings/Appeals		$3,136,393	$3,136,393
	Investigations	$263,567	$336,582	$600,150
Denver Total		**$7,124,585**	**$23,583,659**	**$30,708,244**
Douglas	New Application Processing	$90,807	$211,459	$302,267
	Review/Redetermination	$69,482	$167,373	$236,855
	Case Change	$33,921	$153,079	$187,000
	Case Reviews/Quality Assurance	$76,628	$231,795	$308,423
	Claims/Hearings/Appeals		$321,595	$321,595
	Investigations	$88,556	$252,046	$340,603
Douglas Total		**$359,396**	**$1,337,348**	**$1,696,743**
Eagle	New Application Processing	$107,893	$78,455	$186,348
	Review/Redetermination	$15,389	$59,042	$74,431
	Case Change	$35,638	$110,168	$145,806
	Case Reviews/Quality Assurance	$117,114	$118,461	$235,574
	Claims/Hearings/Appeals		$114,578	$114,578
	Investigations	$53,605	$112,459	$166,063
Eagle Total		**$329,639**	**$593,162**	**$922,800**
El Paso	New Application Processing	$704,627	$1,293,224	$1,997,851

County	Process	Direct Costs	Indirect Costs	Total Costs*
	Review/Redetermination	$434,237	$1,110,693	$1,544,930
	Case Change	$366,968	$1,513,679	$1,880,647
	Case Reviews/Quality Assurance	$957,887	$2,001,347	$2,959,234
	Claims/Hearings/Appeals		$1,971,856	$1,971,856
	Investigations	$330,878	$1,511,874	$1,842,752
El Paso Total		**$2,794,597**	**$9,402,674**	**$12,197,271**
Huerfano	New Application Processing	$24,410	$33,835	$58,245
	Review/Redetermination	$27,129	$38,654	$65,782
	Case Change	$13,040	$35,228	$48,268
	Case Reviews/Quality Assurance	$10,077	$36,402	$46,480
	Claims/Hearings/Appeals		$48,764	$48,764
	Investigations		$27,825	$27,825
Huerfano Total		**$74,656**	**$220,707**	**$295,364**
Mesa	New Application Processing	$314,110	$404,527	$718,637
	Review/Redetermination	$129,209	$378,840	$508,050
	Case Change	$93,134	$458,761	$551,895
	Case Reviews/Quality Assurance	$106,926	$476,083	$583,009
	Claims/Hearings/Appeals		$730,748	$730,748
	Investigations	$19,603	$435,201	$454,804
Mesa Total		**$662,982**	**$2,884,161**	**$3,547,143**
Sedgwick	New Application Processing	$12,990	$14,230	$27,220
	Review/Redetermination	$1,696	$11,475	$13,171
	Case Change	$9,933	$16,903	$26,836
	Case Reviews/Quality Assurance	$2,880	$16,356	$19,237
	Claims/Hearings/Appeals		$15,276	$15,276
	Investigations		$15,276	$15,276
Sedgwick Total		**$27,499**	**$89,517**	**$117,017**
Grand Total*		**$14,873,257**	**$46,026,166**	**$60,899,423**

*Totals may not be exact due to rounding

Figure 61 - Direct and Indirect Cost by Activity and County Size

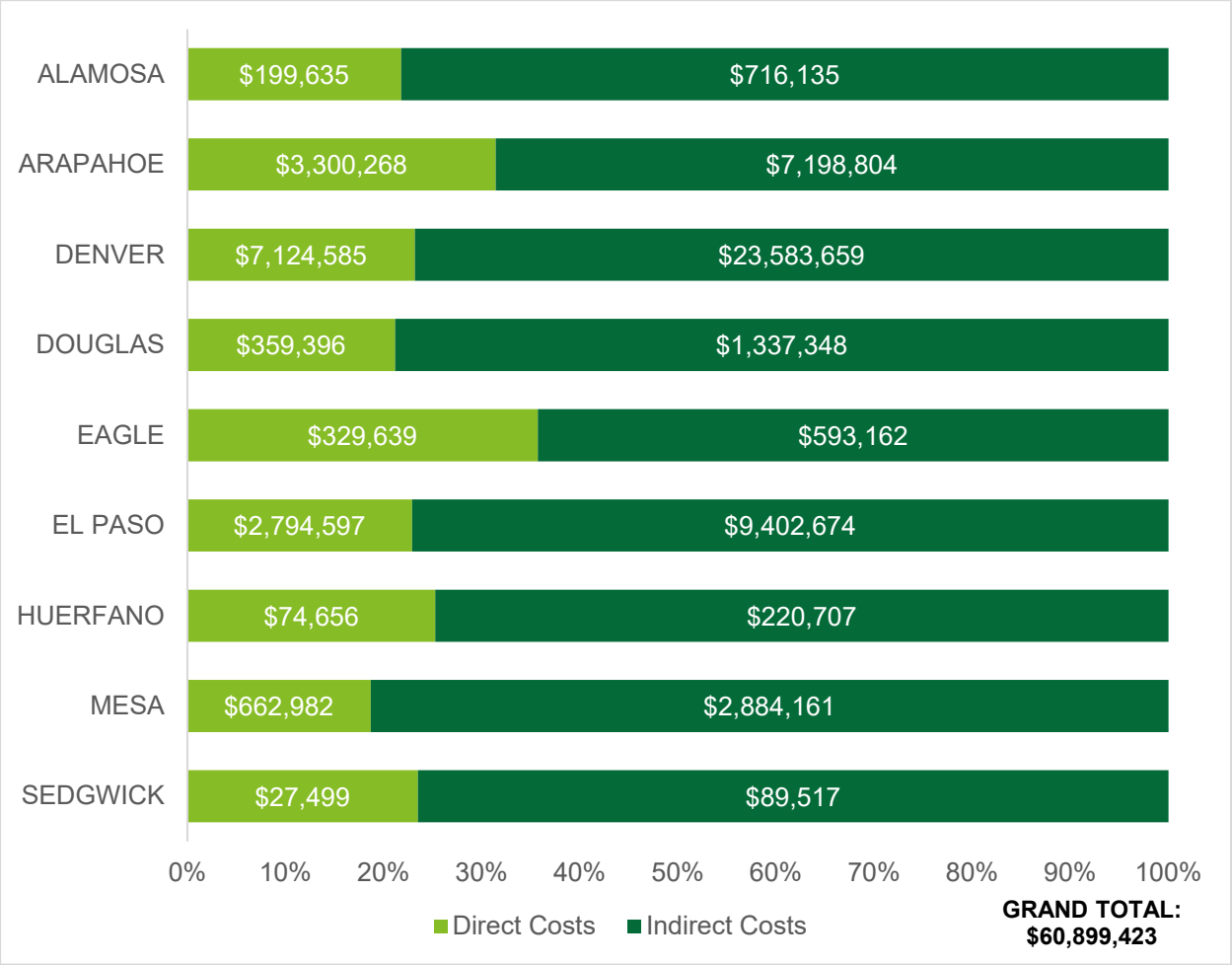

Figure 62 - Direct and Indirect Costs by County

The model also allows a comparison between PEAK and non-PEAK costs and caseload. According to the model, the total cost to process PEAK applications is less than the total cost to process non-PEAK applications because PEAK applications processed through real-time eligibility do not require labor costs. However, as noted earlier there are MA PEAK applications do not pass real-time eligibility and have to be worked by a technician – in this scenario, some county workers choose to manually enter client information to avoid importing potentially incorrect client data. This process may result in longer processing time for these specific PEAK applications. Counties widely report that re-working PEAK cases with incorrect information requires a large amount of time. For PEAK applications requiring additional processing time and effort by a technician, the cost per case for PEAK is higher than the cost per case for non-PEAK. In addition, based on the current business processes, counties have created workarounds for dealing with PEAK system issues that require more time and have resulted in a higher cost per case.

Type of Processing	County	AND	CHP+	LTC	Medicaid	OAP - Cash	SNAP	TANF	Grand Total
New Applications (Non-PEAK)	ALAMOSA	291	5	6	2,216	2	636	244	3,400
	ARAPAHOE	2,509	63	348	19,661	62	3,107	2,838	28,588
	DENVER	6,502	83	350	40,634	110	8,348	4,786	60,813
	DOUGLAS	336	19	84	2,592	7	579	302	3,919
	EAGLE	71	35	6	936	0	714	121	1,883
	EL PASO	3,249	111	579	35,579	59	7,966	4,121	51,664
	HUERFANO	117	2	11	782	0	287	99	1,298
	MESA	1,452	58	250	10,857	6	3,338	1,361	17,322
	SEDGWICK	25	2	6	180	2	82	20	317
New Applications (PEAK)	ALAMOSA	9	5	0	262	0	232	18	526
	ARAPAHOE	859	322	53	12,497	18	9,827	1,678	25,254
	DENVER	790	223	45	14,222	8	12,120	1,171	28,579
	DOUGLAS	168	181	9	2,269	0	2,653	402	5,682
	EAGLE	23	50	2	356	0	676	41	1,148
	EL PASO	881	274	42	17,195	8	10,022	2,099	30,521
	HUERFANO	8	3	0	64	0	87	4	166
	MESA	77	69	11	1,677	1	2,656	221	4,712
	SEDGWICK	2	0	0	8	0	20	0	30
RRR (Non-PEAK)	ALAMOSA	0	0	0	3,384	55	1421	381	5,242
	ARAPAHOE	2,235	1,002	2,585	29,761	391	10,800	2,327	49,101
	DENVER	6,101	0	4,329	65,867	653	28,389	8,351	113,690
	DOUGLAS	197	0	548	3,034	28	2,312	224	6,343

Type of Processing	County	AND	CHP+	LTC	Medicaid	OAP - Cash	SNAP	TANF	Grand Total
	EAGLE	0	0	0	1,270	0	1,288	0	2,558
	EL PASO	2,280	642	3,043	54,545	166	11,815	5,664	78,155
	HUERFANO	122	0	0	1,228	5	276	0	1,632
	MESA	729	0	1,454	15,249	108	6,145	1,848	25,533
	SEDGWICK	0	0	0	266	0	107	30	403
RRR (PEAK)	ALAMOSA	0	0	0	242	0	139	0	380
	ARAPAHOE	0	0	0	6,796	0	2,463	1,780	11,039
	DENVER	0	0	0	4,167	34	1,433	1,319	6,953
	DOUGLAS	98	0	0	1,167	7	638	28	1,938
	EAGLE	0	0	0	0	0	0	0	0
	EL PASO	0	0	0	5,557	7	1,377	246	7,187
	HUERFANO	0	0	0	82	0	33	0	114
	MESA	0	0	0	1,182	0	529	0	1,711
	SEDGWICK	0	0	0	0	0	0	0	0

Figure 63 - PEAK and Non-PEAK Caseload by New Application and RRR

Process	Non-Peak	Peak	Grand Total
New Application Processing Cost	$8,535,622.29	$5,545,178.74	**$14,080,801.03**
New Application Processing Cost per Case	$34.37	$44.57	**$37.77**

Figure 64 - PEAK and Non-PEAK Cost per Case

New application processing, RRR, and case changes each require 87% personnel costs, while activities that require less direct customer interaction, such as case reviews, claims, and investigations require a lower percentage of personnel costs and a higher percentages of services costs. The table below presents the fully burdened cost of the six direct activities—the costs of indirect activities such as customer service, finance, legal, and training are embedded in the costs below.

Cost Types	New Application Processing	RRR	Case Change	Case Reviews / Quality Assurance	Claims / Hearings / Appeals	Investigations	Grand Total
Personnel Costs	$12,305,247.18	$10,884,907.15	$11,431,370.10	$7,565,738.74	$6,444,081.95	$3,890,105.51	**$52,521,450.62**
Contractors Costs	$48,788.43	$70,916.13	$52,667.12	$560.31	$34,299.85	($1,026.50)	**$206,205.34**
Facilities Costs	$628,764.16	$584,589.04	$611,146.32	$405,382.81	$391,595.07	$164,321.51	**$2,785,798.91**
Comm. Costs	$1,667.85	$1,133.13	$1,262.66	$1,465.80	$1,628.44	$1,172.19	**$8,330.06**
Equipment Costs	$233.87	$321.33	$209.76	$279.50	$237.01	$165.31	**$1,446.78**
Payments Costs	$133.33	$142.52	$184.55	$123.34	$391.08	$190.10	**$1,164.92**
Services Costs	$1,031,912.88	$857,927.36	$932,042.95	$943,525.40	$768,404.23	$540,667.77	**$5,074,480.59**
Supplies Costs	$29,626.14	$20,899.02	$21,582.84	$24,101.68	$25,763.39	$16,980.78	**$138,953.84**
Technology Costs	$95.47	$129.53	$86.54	$110.60	$94.74	$64.60	**$581.48**
Transportation Costs	$34,009.19	$26,998.48	$29,227.07	$29,291.91	$23,132.18	$16,540.78	**$159,199.61**
Legal Costs	$322.41	$252.64	$199.46	$328.97	$343.02	$363.30	**$1,809.80**
Grand Total*	**$14,080,800.89**	**$12,448,216.32**	**$13,079,979.37**	**$8,970,909.06**	**$7,689,970.96**	**$4,629,545.34**	**$60,899,421.95**

*Totals may not be exact due to rounding
Note: Negative numbers are due to reversals of payments recorded in CFMS

Figure 65 - Model Results Cost Type by Activity

The table below shows the breakdown of cost model results by county for each of the seven programs in the study. As previously stated, MA includes OAP costs related to HCPF. The total cost for these programs across the nine counties is $60,899,423, which is a sum of all modeled costs that can be directly traced to the seven programs. This number excludes any costs that may be associated with programs outside of the study. The model shows the following results for cost by county by program for the nine pilot counties. While MA and SNAP are largely the most expensive programs, AND, CHP+, LTC, OAP-Cash, and TANF are also significant portions of a county's costs, and should be considered in the allocation formula.

County	AND	CHP+	LTC	MA	OAP - Cash	SNAP	TANF	Grand Total*
ALAMOSA	$15,035	$6,990	$29,911	$426,729	$17,163	$385,490	$34,451	**$915,770**
ARAPAHOE	$274,390	$152,236	$558,987	$5,233,017	$248,815	$3,394,171	$637,455	**$10,499,072**
DENVER	$950,174	$67,296	$1,078,800	$12,474,467	$557,475	$13,371,592	$2,208,439	**$30,708,244**
DOUGLAS	$42,714	$32,224	$112,865	$921,566	$39,114	$477,250	$71,010	**$1,696,743**
EAGLE	$8,057	$49,623	$13,054	$635,553	$8,410	$186,144	$21,959	**$922,800**
EL PASO	$241,242	$116,666	$505,971	$6,220,836	$179,924	$4,381,907	$550,725	**$12,197,271**
HUERFANO	$9,153	$505	$7,985	$140,054	$6,807	$109,420	$21,440	**$295,364**
MESA	$83,481	$39,273	$195,859	$1,644,798	$42,944	$1,356,640	$184,149	**$3,547,143**
SEDGWICK	$3,180	$704	$6,306	$56,569	$4,886	$35,134	$10,239	**$117,017**
Grand Total*	**$1,627,426**	**$465,518**	**$2,509,737**	**$27,753,590**	**$1,105,537**	**$23,697,747**	**$3,739,868**	**$60,899,423**

*Totals may not be exact due to rounding

Figure 66 – Model Results of Program Costs by County

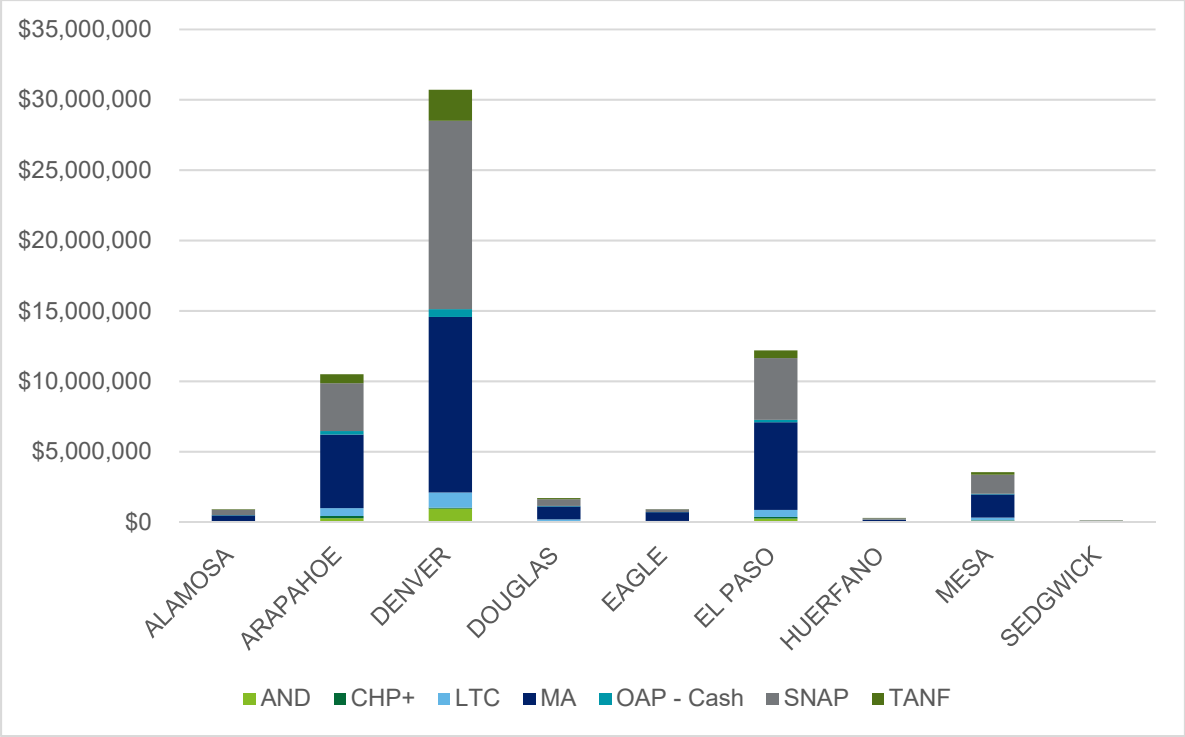

Figure 67 - Program Costs by County

The table below (Figure 68) shows a breakdown of the costs associated with every activity recorded in the survey responses we received from the 9 counties.

Activity	ALAMOSA	ARAPAHOE	DENVER	DOUGLAS	EAGLE	EL PASO	HUERFANO	MESA	SEDGWICK	Grand Total
New Application - Application Initiation Non-Peak	$9,627	$152,038	$238,613	$5,571	$7,274	$54,616	$3,496	$25,526	$2,285	**$499,046**
New Application - Application Initiation Peak		$47,506	$144,440	$7,432		$73,234	$1,454	$13,570		**$287,636**
New Application - Interactive Interview Non-Peak	$18,735	$435,113	$726,703	$45,424	$22,625	$188,167	$5,526	$84,196	$10,675	**$1,537,164**
New Application - Interactive Interview Peak	$25,710	$490,909	$602,840	$15,429	$52,699	$181,914	$3,634	$89,565		**$1,462,700**
New Application - Post Authorization Non-Peak	$2,785	$49,524	$272,314	$3,591	$3,689	$67,191	$3,158	$23,943	$30	**$426,225**
Case Change - Application Initiation Non-Peak	$74	$17,932	$20,115		$1,025	$6,767	$171	$1,425	$54	**$47,562**
Case Change - Application Initiation Peak		$34,158	$7,979	$5,510		$13,710				**$61,357**
Case Change - Interactive Interview Non-Peak	$8,673	$123,979	$391,962	$21,336	$8,410	$128,014	$5,258	$18,660	$316	**$706,609**
Case Change - Interactive Interview Peak	$4,571	$136,065	$515,976	$4,312	$10,540	$128,544	$4,361	$22,798		**$827,168**
Case Change - Post Authorization Non-Peak	$4,751	$48,562	$118,945	$2,314	$6,880	$53,699	$3,249	$26,371	$9,564	**$274,334**
Case Change - Post Authorization Peak	$2,285	$59,296	$198,483	$449	$8,783	$36,234		$23,879		**$329,409**
Redetermination/Recertification Application Initiation Non-Peak	$777	$69,624	$90,035	$1,228	$7,133	$13,586	$1,381	$7,443	$52	**$191,258**
Redetermination/Recertification Application Initiation Peak		$134,533	$92,719	$44,778		$32,175				**$304,205**
Redetermination/Recertification Interactive Interview Non-Peak	$20,802	$247,373	$673,007	$22,552	$15,810	$182,487	$7,341	$69,610		**$1,238,983**
Redetermination/Recertification Interactive Interview Peak	$46,468	$236,452	$844,699	$9,210		$212,865	$16,354	$47,632		**$1,413,679**
Redetermination/Recertification Post Authorization Non-Peak	$7,336	$98,371	$271,502	$2,177		$38,499	$1,744	$12,309	$1,644	**$433,582**
Redetermination/Recertification Post Authorization Peak	$1,972	$65,124	$331,212	$256		$42,270	$3,816	$25,648		**$470,298**
Case Reviews	$45,071	$725,396	$1,097,123	$76,628	$117,114	$957,887	$10,077	$106,926	$2,880	**$3,139,104**
Claims/Hearings/Appeals - Medicaid		$59,928	$291,856	$29,299	$6,565	$55,050	$3,697	$46,975		**$493,371**
Claims/Hearings/Appeals - Non-Medicaid	$28,300	$89,402	$1,085,551	$52,212		$348,332	$7,614	$160,578		**$1,771,989**
Customer Service	$343,146	$2,963,339	$8,544,601	$188,029	$506,915	$3,651,935	$73,590	$1,545,484	$57,605	**$17,874,643**

Activity	ALAMOSA	ARAPAHOE	DENVER	DOUGLAS	EAGLE	EL PASO	HUERFANO	MESA	SEDGWICK	Grand Total
Data Analysis/Reporting	$21,359	$360,790	$1,986,085	$38,101	$20,139	$259,310	$34,018	$42,486		**$2,762,288**
Administration				$785	$456			$6,632		**$7,874**
Facilities (Rent, Utilities, Leases, Maintenance)	$17,469	$392,123	$1,874,814	$956		$396,573	$25,104	$52,189	$3,599	**$2,762,825**
Finance & Accounting	$17,471	$11,315		$79,485		$3,901	$4,277	$15,580	$10,274	**$142,303**
Help Desk	$13,058	$212,023	$377,438	$28,533	$3,021	$108,908	$1,924	$27,061		**$771,966**
Human Resources		$9,248	$63,215			$7,825	$1,273	$522	$110	**$82,193**
Information Technology	$1,969	$6,624	$62,076	$44,459		$11,902		$172		**$127,203**
Internal Communication	$18,266	$754,452	$3,343,739	$117,406	$100,010	$1,180,623	$10,930	$226,611	$3,297	**$5,755,333**
Investigations		$74,014	$263,567	$88,556	$53,605	$330,878		$19,603		**$830,223**
Legal	$177		$53,569	$1,810	$6,042	$34,577		$711		**$96,886**
Management Activities	$49,315	$90,649	$2,451,475	$44,792	$34,461	$456,902	$12,747	$90,901	$6,250	**$3,237,492**
New Application Post Authorization Peak		$54,299	$222,350	$2,641	$14,053	$51,860	$3,634	$43,878		**$392,715**
Operations Management (Supplies, Equipment, Contractors, Services)	$59,094	$811,219	$1,671,354	$400,988	-$166,660	$2,028,980	$19,820	$338,168	$8,382	**$5,171,346**
Training/Recruiting/Hiring	$146,510	$1,437,692	$1,777,888	$310,493	$82,212	$857,859	$25,713	$330,089		**$4,968,456**
Grand Total	**$915,770**	**$10,499,072**	**$30,708,244**	**$1,696,743**	**$922,800**	**$12,197,271**	**$295,364**	**$3,547,143**	**$117,017**	**$60,899,423**

*Totals may not be exact due to rounding

Figure 68- Survey Activity Costs by County

4.5. Cost and Performance Relationships

Comparing cost per case by activity, program, and county can provide a basis for further analysis on performance. However, these results can vary based on factors other than performance or efficiency, such as cost of living in the county, IT infrastructure, staffing patterns, and case complexities. The model results provide a cost by program and cost per case, which is based on the 2016 caseload from CBMS for each program and county. Figure 69 below shows the volume of cases for each of the seven programs in the study for the nine counties.

County	AND	CHP+	LTC	MA	OAP - Cash	SNAP	TANF
ALAMOSA	129	99	393	3,937	259	2,127	167
ARAPAHOE	749	2,507	6,166	67,693	3,407	20,949	1,582
DENVER	3,110	2,371	7,979	107,680	7,015	40,096	3,996
DOUGLAS	90	628	1,211	12,439	388	2,205	85
EAGLE	14	361	74	3,636	61	590	35
EL PASO	1,388	2,001	6,328	92,687	2,357	31,622	2,248
HUERFANO	71	13	206	1,644	136	970	82
MESA	416	687	2,509	22,388	828	8,940	692
SEDGWICK	11	7	47	329	16	145	13
GRAND TOTAL	**5,978**	**8,674**	**24,912**	**312,432**	**14,467**	**107,644**	**8,900**

Figure 69 - CY 2016 Caseload by Program and County

Based on the volume of cases presented in Figure 69 and county administration and appropriated costs reported in CFMS, the cost model results have calculated the cost per case per month for each of the seven programs and the nine counties in this study (Figure 70). The cost per case can vary widely among the counties. In this table, MA includes OAP costs related to HCPF. It should be noted that LTC, CHP+, and OAP-Med costs may be higher than what the table shows due to the aid code hierarchy in CBMS. This is because MA includes all aid codes until an eligibility determination is made, so when an application for MA is first received, the county does not know which aid code CBMS will assign to the member and most likely charges any expenditures (i.e. salary/fringe, etc.) to regular HCPF county administration. Once all the member's data is entered in the system and an eligibility determination is made, CBMS then provides the aid code (LTC, CHP+, and OAP-Med) for which the member is eligible.

The high cost per case for TANF reflects the fact that these cases can be quite time-consuming, though they are a small portion of overall caseload. The low cost per case for Medical Assistance represents the fact that PEAK provides real-time eligibility for many cases, which means they bypass reviews by staff. A detailed explanation and example of how this study derived cost per case by program can be found in Appendix K.

Cost per Case (Cost Model Results)	AND	CHP+	LTC	MA	OAP - Cash	SNAP	TANF
ALAMOSA	$9.71	$5.86	$6.34	$9.03	$5.52	$15.10	$17.19
ARAPAHOE	$30.53	$5.06	$7.55	$6.44	$6.09	$13.50	$33.58
DENVER	$25.46	$2.37	$11.27	$9.65	$6.62	$27.79	$46.06
DOUGLAS	$39.55	$4.28	$7.77	$6.17	$8.40	$18.04	$69.62
EAGLE	$47.96	$11.47	$14.72	$14.57	$11.49	$26.29	$52.28
EL PASO	$14.48	$4.86	$6.66	$5.59	$6.36	$11.55	$20.42
HUERFANO	$10.74	$3.30	$3.23	$7.10	$4.17	$9.40	$21.79
MESA	$16.72	$4.76	$6.51	$6.12	$4.32	$12.65	$22.18
SEDGWICK	$24.09	$7.91	$11.30	$14.32	$25.45	$20.19	$65.64
Average*:	**$22.69**	**$4.47**	**$8.40**	**$7.40**	**$6.37**	**$18.35**	**$35.02**

*Average is a weighted average based on the county caseload

Figure 70 - CY 2016 Cost per Case per Month by Program and County from Cost Model Results

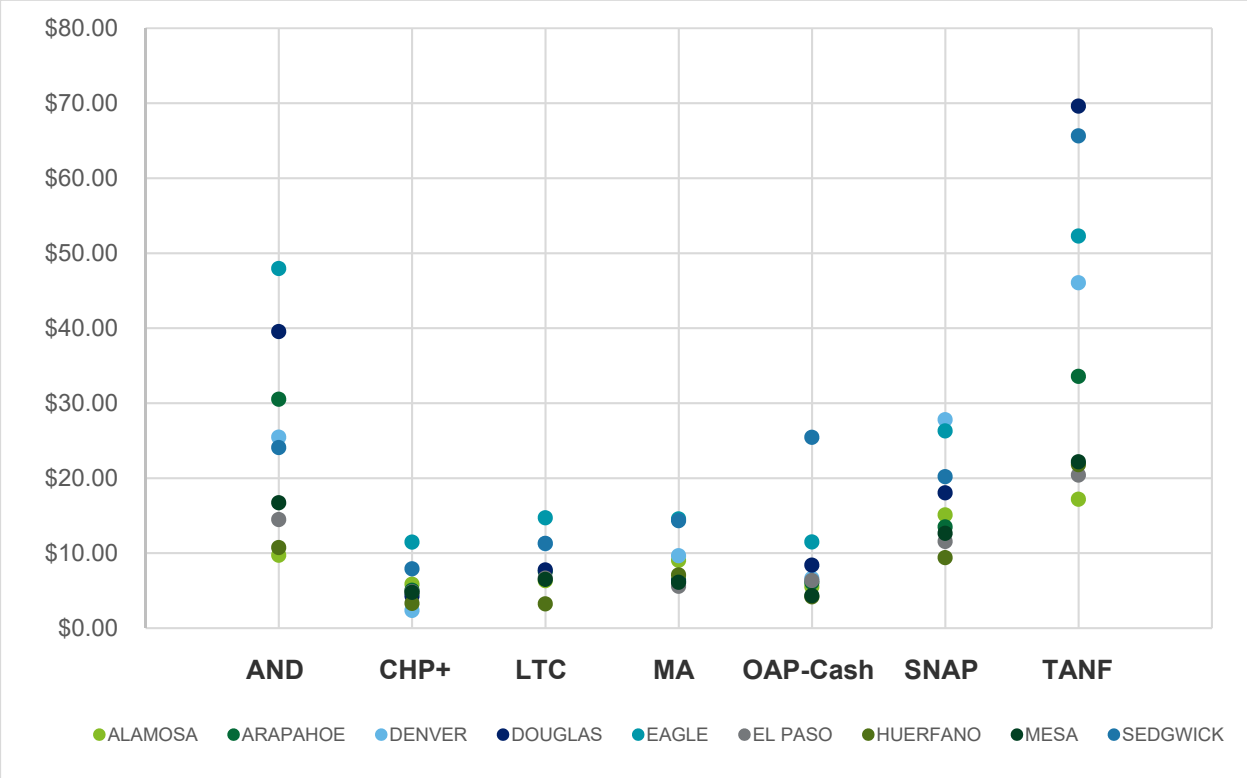

Figure 71 - County Program Cost per Case by Month from Cost Model Results

The table below shows the wage required for a family with two adults and two children. To the right is a multiplier that would need to be applied to make that county's wage

equal to the average living wage required in the State of Colorado ($17.05 per hour).[6] Counties with a higher cost per case can also have a higher living wage requirement.

County	Living Wage (2 Adults 2 Children)	Multiplier	Average Cost per Case Per Month*	Cost per Case with Multiplier
Alamosa	$15.64	0.917	$10.73	$9.84
Arapahoe	$17.51	1.027	$8.49	$8.72
Denver	$17.51	1.027	$14.85	$15.25
Douglas	$17.51	1.027	$8.29	$8.51
Eagle	$17.45	1.023	$16.12	$16.50
El Paso	$16.41	0.962	$7.33	$7.05
Huerfano	$15.70	0.921	$7.88	$7.26
Mesa	$16.10	0.944	$8.11	$7.66
Sedgwick	$15.64	0.917	$17.17	$15.75

* Average is a weighted average based on the total county caseload

Figure 72 – Cost per Case Based on Living Wage for Family of Four by County

Based on the cost per case with multiplier shown in Figure 72, Alamosa, Arapahoe, Douglas, El Paso, Huerfano, and Mesa have a lower average cost per case for the seven programs in the study, while Denver, Eagle, and Sedgwick have a higher cost per case. This variance could be a result of differences in county processes, division of labor, as well as cost of living and county size. For example, Sedgwick has a very high cost per case, which could be a result of low economies of scale given that it only has a few staff who are responsible for multiple activities outside of case processing. El Paso, on the other hand, has the lowest cost per case, which can be explained by its use of contractors and more efficient business processes. In April 2017, CDHS awarded El Paso County for its excellent performance in delivering food and cash assistance. Mesa also has a low cost per case due to implementation of several business process improvements such as staging areas and providing enhanced training to eligibility workers, lessening the need to ask supervisors questions during routine work. Among counties with a high cost of living, Arapahoe and Douglas stand out because of their lower cost per case. Arapahoe has been able to achieve a lower cost per case after implementing process improvement, such as a paperless workload management system, while Douglas has a strict spending and headcount cap, follows a paperless process, does not accept emailed documents to control workload, and hires contractors to provide customer service and process document intake.

The cost per case data shown in Figures 69-72 is based on the cost model analysis of survey responses for the activities performed by staff in the nine counties. To compare the cost per case derived from cost model results, Figure 73 shows the cost per case

[6] Living Wage Calculator, **http://livingwage.mit.edu/states/08/locations**.

based strictly on how counties coded their expenses in CFMS. According to these CFMS reported costs, the cost per case for AND, CHP+, and LTC, seem much lower than staffing patterns, interviews, and survey results indicate from this study. In addition, the TANF cost per case as reported in CFMS is significantly greater than what the cost model results have shown based on the activities reported in the survey. For this reason and other reasons discussed in section 7, Colorado should consider identifying alternative cost allocation methodologies and determining which most accurately represent direct costs.

Additional detail around cost per case for each of the surveyed activities performed by staff in the nine counties is provided in Appendix R. A breakdown of case processing time, cost per case, and county performance for each of the nine counties is shown in Appendix S. Based on the data in Appendix S, the study cannot conclude if there's a clear relationship/correlation between processing time, cost per case, and performance metrics.

Cost per Case (CFMS Reported)	AND	CHP+	LTC	MA	OAP - Cash	SNAP	TANF
ALAMOSA	$4.07	$0.06	$1.72	$9.49	$3.07	$17.97	$41.36
ARAPAHOE	$15.86	$0.07	$4.21	$5.04	$4.95	$21.21	$50.63
DENVER	$16.46	$0.17	$9.88	$8.71	$8.33	$33.88	$58.71
DOUGLAS	$16.81	$0.03	$1.91	$5.48	$11.70	$20.94	$309.71
EAGLE	$138.77	$0.05	$29.01	$10.15	$36.45	$69.89	$370.50
EL PASO	$10.16	$0.13	$6.00	$4.26	$7.30	$20.06	$34.79
HUERFANO	$9.84	$0.54	$4.03	$7.87	$5.65	$13.13	$50.17
MESA	$11.36	$0.09	$4.13	$4.98	$7.02	$20.53	$132.61
SEDGWICK	$22.13	$0.44	$6.42	$15.64	$16.72	$29.75	$94.89
Average*:	**$14.52**	**$0.11**	**$6.40**	**$6.23**	**$7.39**	**$25.67**	**$60.25**

* Average is a weighted average based on the county caseload

Figure 73 - CY 2016 Cost per Case Per Month by Program and County from Reported CFMS Costs

4.6. Business Process Improvements

If introduced, business process improvements would save costs by streamlining value-add activities or allowing staff to shift their focus away from non-value-add activities. As previously mentioned, the report does not provide an analysis around the cost of implementing BPR and any associated return on investment. While the State and the counties have made investments in BPR in the past, this study did not have sufficient information to conduct a cost-benefit analysis of these past investments.

Counties have been able to achieve a lower cost per minute by introducing technology improvements such as paperless systems and workload management systems. Paperless systems have freed up paper storage space in counties like Douglas, which can be converted into office space. Paperless systems also minimize the likelihood that a file will get lost, which leads to fewer requests to the client and less rework.

Counties spent nearly 40% of staff time providing customer service. A shared call center provided by the state or larger counties may be able to handle calls at a lower cost per

call than in some counties, and potentially with expanded hours. Increased self-service features through PEAK may also decrease the burden on counties. With an average cost per case per month of $10.51 across all programs, $3.08 of that cost is attributed to customer service and $1.88 collectively for case processing activities (AI, II, PA).

Training, recruiting, and hiring also make up a large share of county costs. Colorado should consider providing more robust training at the state level, including on policy issues, and centralizing some recruiting and hiring costs.

Activity	Cost Model Results	Yearly Average Cost per Case	Average Cost per Case per Month
Customer Service	$17,874,643.29	$37.01	$3.08
Interactive Interview	$7,186,302.86	$14.88	$1.24
Internal Communication	$5,755,332.88	$11.92	$0.99
Operations Management (Supplies, Equipment, Contractors, Services)	$5,171,345.69	$10.71	$0.89
Training/Recruiting/Hiring	$4,968,455.77	$10.29	$0.86
Management Activities	$3,237,491.90	$6.70	$0.56
Case Reviews	$3,139,103.76	$6.50	$0.54
Data Analysis/Reporting	$2,762,825.37	$5.72	$0.48
Facilities (Rent, Utilities, Leases, Maintenance)	$2,762,288.10	$5.72	$0.48
Post Authorization	$2,326,564.06	$4.82	$0.40
Claims/Hearings/Appeals	$2,265,359.68	$4.69	$0.39
Application Initiation	$1,391,063.46	$2.88	$0.24
Investigations	$830,222.57	$1.72	$0.14
Help Desk	$771,965.56	$1.60	$0.13
Finance & Accounting	$142,302.90	$0.29	$0.02
Information Technology	$127,202.50	$0.26	$0.02
Legal	$96,885.85	$0.20	$0.02
Human Resources	$82,193.23	$0.17	$0.01
Administration	$7,873.62	$0.02	$0.00
Total:	$60,899,423.04	$126.08	$10.51

Figure 74 - Cost per Case by Activity by Year and by Month

To minimize costs, Colorado should focus business process improvements on customer service activities and training, recruiting, and hiring. For more specific business process challenges observed in the nine counties as well as recommendations for improvement, see Sections 6 and 8.

5. Fifty-Five County Survey Data

In addition to the analysis of activities and times for the nine counties, the study collected and analyzed survey data for the remaining 55 counties. Described below is the approach for collecting the data, followed by the analysis.

5.1. Approach for the Collection of 55 County Survey Data

Another data collection task was surveying the 55 remaining counties in addition to the nine that took part in the in-depth analysis. Provided below are the 55 remaining Colorado counties identified by their size. The size categorization is based on each county's caseload.

Small			Medium		Large
Archuleta	Grand	Phillips	Broomfield	Moffat	Adams
Baca	Gunnison	Pitkin	Chaffee	Montezuma	Boulder
Bent	Hinsdale	Rio Blanco	Conejos	Montrose	Jefferson
Cheyenne	Jackson	Routt	Delta	Morgan	Larimer
Clear Creek	Kiowa	San Juan	Fremont	Otero	Pueblo
Costilla	Kit Carson	San Miguel	Garfield	Prowers	Weld
Crowley	Lake	Summit	La Plata	Rio Grande	
Custer	Lincoln	Washington	Las Animas	Saguache	
Dolores	Mineral	Yuma	Logan	Teller	
Elbert	Ouray				
Gilpin	Park				

Figure 75 - Table of 55 Remaining Counties by Size

Similar to the approach taken for the nine counties, the team conducted a kick-off meeting for State Leadership and the Directors of the 55 counties to review the purpose of the study as well as its goals and expectations. To collect county activity data, a survey was developed for the 55 counties that was largely based on the one distributed to the nine counties. It contained several updates, such as expansion of customer service data to provide greater detail around the tasks included in this large category. Prior to the distribution of the survey, four one-hour supervisor training sessions were conducted aimed at explaining the details of the survey to county supervisors and preparing them to administer the survey to all staff.

Of the 55 counties, survey responses were received for 54 counties. The only county that did not submit a survey was Hinsdale. However, Gunnison County completes all case processing for Hinsdale, which may account for this discrepancy. Across the 54 counties that participated, 1,421 responses were received in the survey. Of these submissions, small counties provided 154 responses or 10.8%, medium counties contributed 376 response or 26.5%, and large counties accounted for 891 responses or 62.7%. The pie chart below provides a graphical representation of county survey participation data.

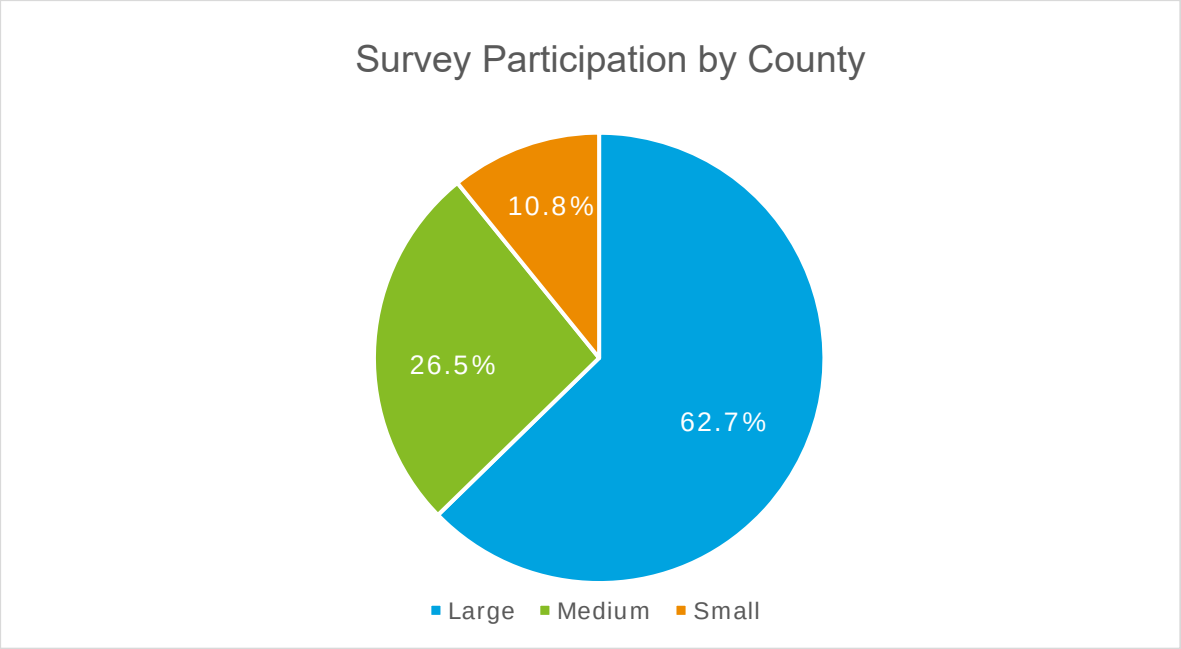

Figure 76 - 55 County Survey Participation

Out of the 1,421 submissions, there were 815 participants that worked on case processing or approximately 57.4%. These 815 participants processed a total of 5,637 cases.

5.2. Analysis of the 55 County Survey Data

In the assessment of the 55 county survey data, a number of submissions containing outlier data were detected and removed from the analysis. Outlier data was determined based on case processing times in excess of four hours and total work in excess of ten hours per entry. Out of 1,421 total responses for the 55 counties, 64 submissions contained the outlier data, resulting in 1,357 unique responses that were used to analyze the 55 county survey data.

The analysis of the 55 county survey data showed that of the total time spent on the administration of public benefit assistance programs, approximately 40% is spent on case processing activities, while 60% is dedicated to all additional activities that support the seven programs in the study. This statistic is consistent with the activities breakdown observed in the nine counties. The chart below shows how small, medium, and large counties compare across case processing and additional activities.

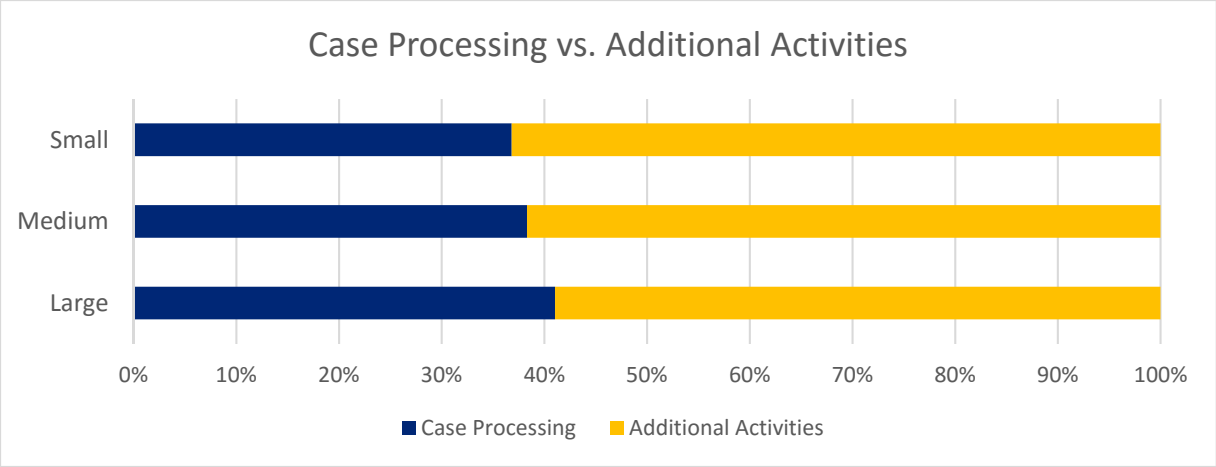

Figure 77 - 55 County Case Processing vs Additional Activities

To provide additional detail on the activities in the two categories, the chart below presents how staff in small, medium, and large counties spend their time across all activities.

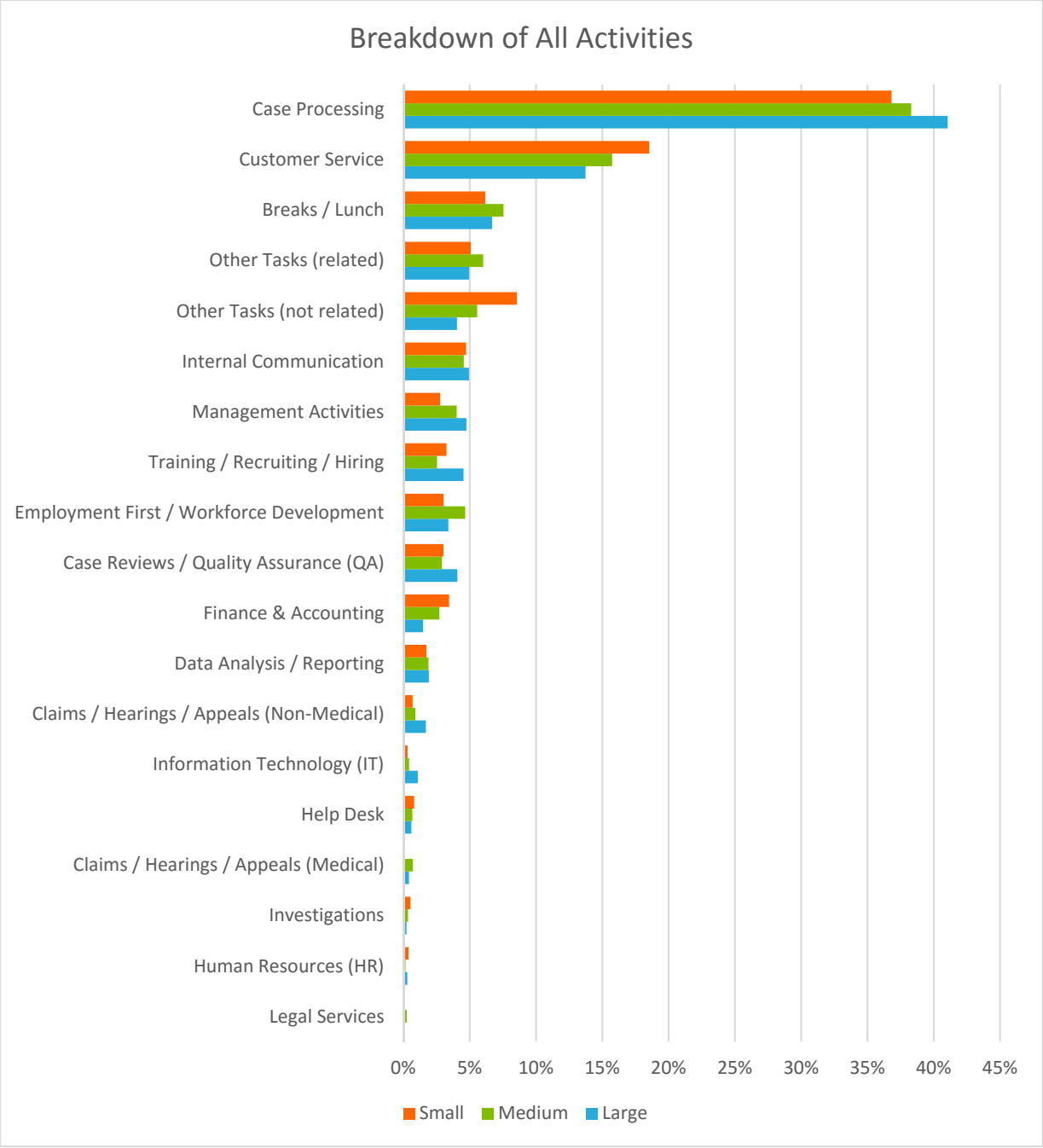

Figure 78 - 55 County Breakdown of All Activities

As shown in this graph, staff in different size counties spend on average the same amount of time on specific activities. Case processing and customer service are the two most time-consuming task groups, taking up approximately 55% of staff time. Breaks and lunch is the third most time-consuming activity because all staff are entitled to a 30 min break, while the remaining activities are performed by only some staff.

Case Processing Activities

To take a closer look at case processing activities, the next section analyzes how counties compare on processing times for new applications, RRR, and case changes, as well as examine processing times for PEAK and non-PEAK cases and cases involving different programs. The chart below shows how much time small, medium, and large counties take to process new applications, RRR, and case changes.

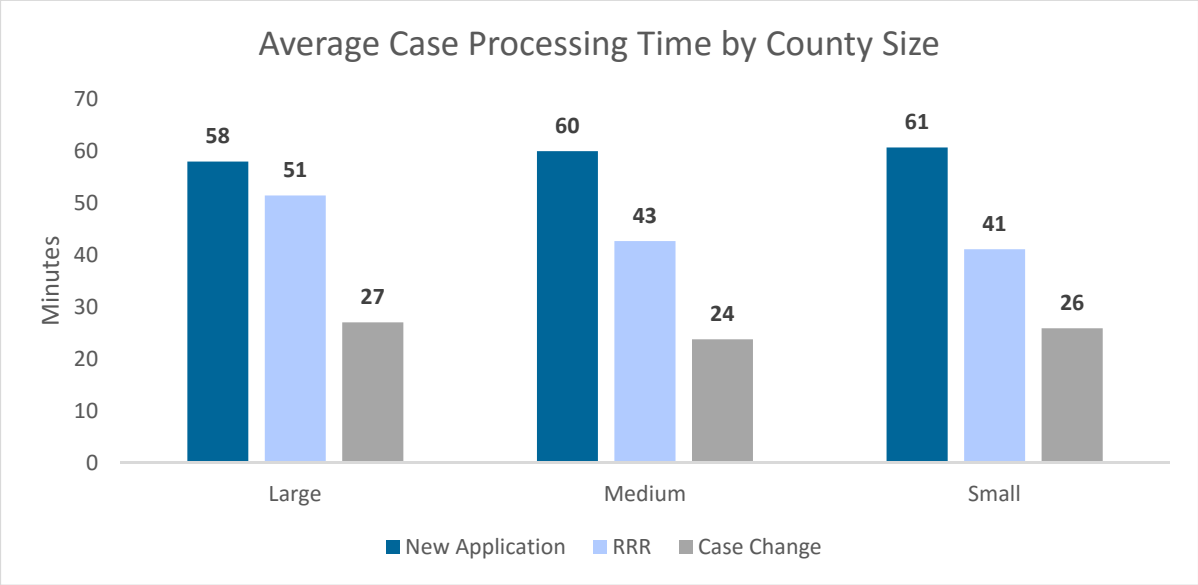

Figure 79 - 55 County Average Case Processing Time by County Size

As this graph shows, across all counties new applications take longer to process than RRRs and significantly longer to process than case changes. This observation is consistent with the findings for the nine counties. It is further explained by the fact that new applications often involve more steps than do RRRs and case changes, because new cases require initial document collection and verification, account creation, as well as interviews for most programs. In addition, this graph shows that large counties are slightly faster at processing new applications than are medium and small counties—this difference in processing times is between 2-3 minutes per case. However, when it comes to RRRs, large counties are 8-10 minutes slower than medium and small counties, which is a significant amount of time, especially given the volume of cases that pass through large counties. As for case changes, medium counties are 2-3 minutes faster at processing them than are small and large counties. Additional analysis of business processes across small, medium, and large counties may provide greater clarity into the differences in case processing times.

As described in the analysis of the nine county data, clients can submit new applications, RRR, or case changes through different channels—by mail, in-person, via phone, or online through PEAK. Case processing times can vary depending on the source of application. To get a better understanding of the volume of cases coming

through different channels, the pie chart below shows the split between PEAK and non-PEAK cases.

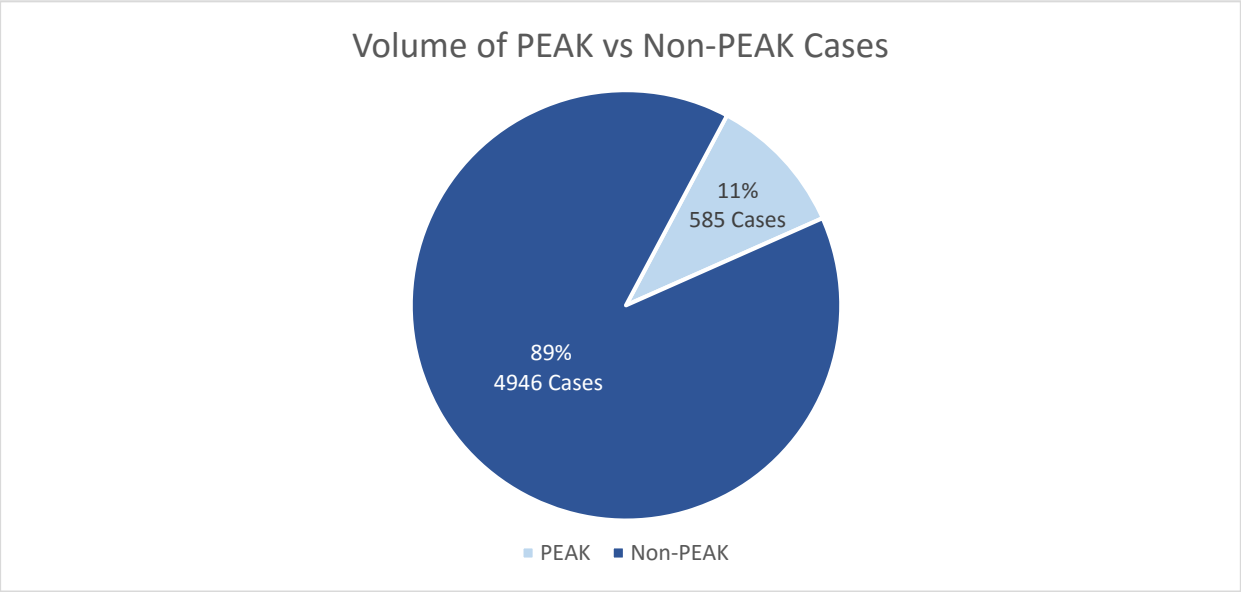

Figure 80 – 55 County Volume of PEAK vs Non-PEAK Cases

As this graph indicates, the majority of cases came through non-PEAK channels, approximately 89%. The following chart indicates differences in processing times of PEAK and non-PEAK cases in small, medium, and large counties.

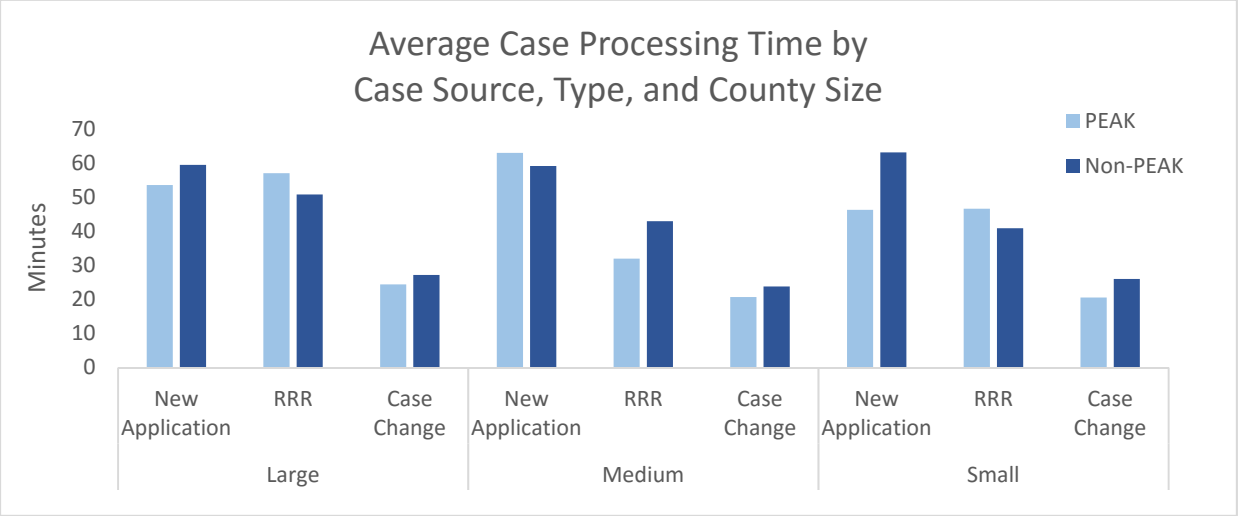

Figure 81 - 55 County Average Case Processing Time by Case Source, Type, and County Size

Comparison of processing of PEAK and non-PEAK cases across case types and county sizes shows that in small and large counties, new PEAK applications and case changes take less time to process than non-PEAK new applications. When it comes to RRR,

small and large counties take longer to process PEAK RRR cases than non-PEAK RRR cases. In medium counties, however, new PEAK applications take slightly longer to process than non-PEAK new applications, while PEAK RRR and case changes take less time to process than non-PEAK RRR and case changes. This could be explained by differences in business processes for dealing with PEAK and non-PEAK cases across counties and across teams working on new applications, RRR, and case changes.

While average case processing time varies by county, case type, case source, it also differs by program, such as MA, SNAP, TANF, CHP+, AND, OAP, and LTC. The analysis of case volumes for each program, showed that 47% of all cases included multiple programs. The three most frequent single or multiple-program cases were for MA and SNAP representing approximately 30.2% of total cases worked, MA-only cases equaling 22.1%, and SNAP-only cases averaging 18.5%. The pie chart below provides a graphical representation of the data.

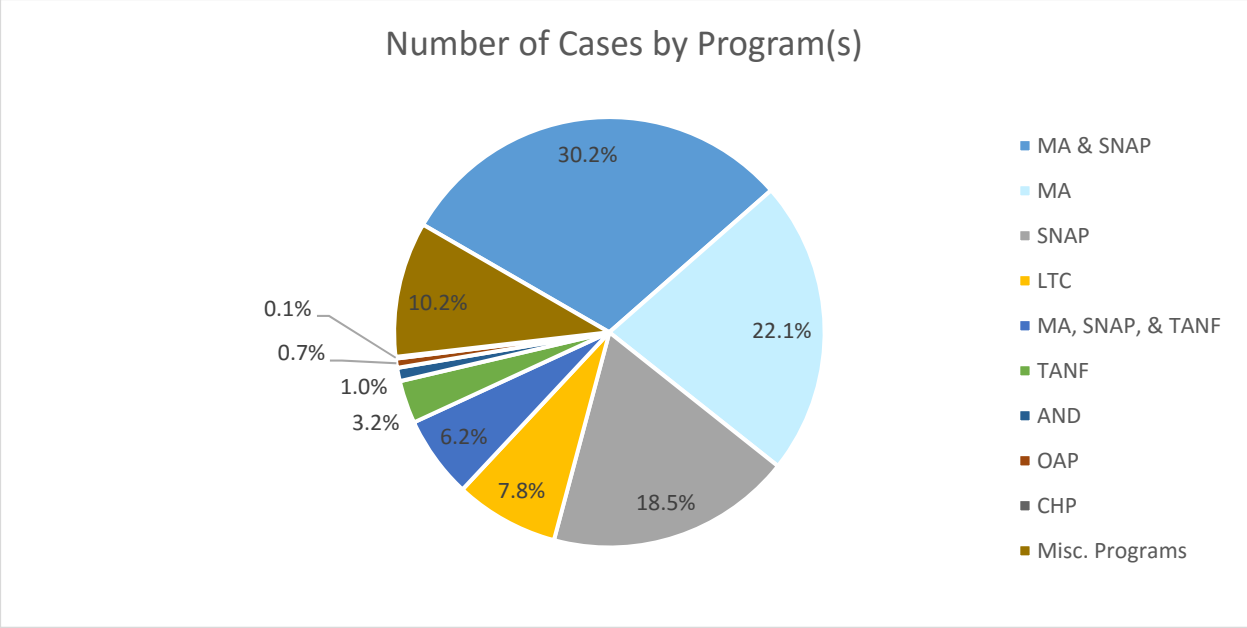

Figure 82 - 55 County Number of Cases by Program

With an understanding of the volume of cases in each of the programs, the next chart examines how much time it takes to process new applications, RRR, and case changes for these single and multiple-program cases.

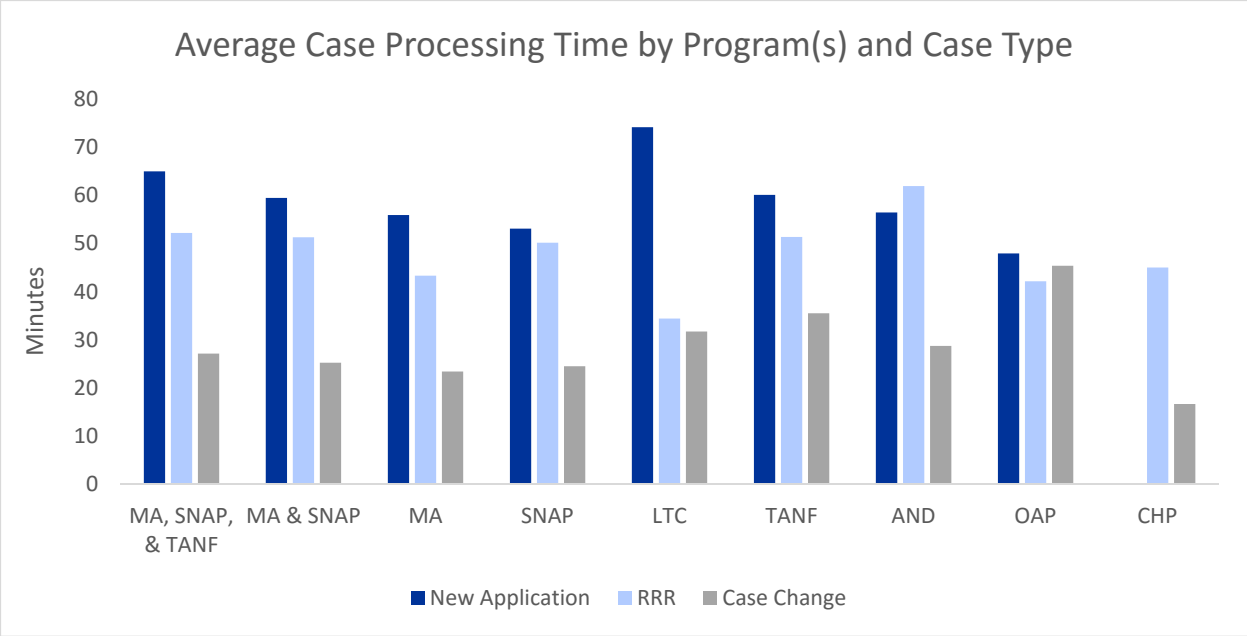

Figure 83 - 55 County Average Case Processing Time by Program(s) and Case Type

This chart further confirms that on average new applications take more care to process than RRR and case changes across most programs, with an exception of AND where it takes longer to process an AND RRR than an AND new application. For single-program cases, it takes the longest to process an LTC new application, but once it's been processed, it takes only half as much time to process an LTC RRR or case change. TANF and AND are also slightly higher in processing of new applications and RRR averaging between 60-62 minutes, compared to other single-program cases that take between 48-56 minutes.

When analyzing multiple-program cases, it takes the longest to process a new application that includes MA, SNAP, & TANF, averaging 65 minutes. That number goes down to 59 minutes for MA & SNAP new applications, followed by 56 minutes for MA only new applications and 53 minutes for SNAP only new applications. The pattern is similar for RRR, with an exception of MA only RRR cases that take approximately 7-9 minutes less to process than RRR cases for SNAP, TANF, and multiple-program RRRs for MA and SNAP, and MA, SNAP, & TANF. OAP case changes also show slightly longer processing times at 45 minutes, compared to other programs ranging between 17-36 minutes, however, it is difficult to verify validity of this statistic, given that there were only three submissions for single-program OAP case changes. There were also no submissions for CHP+ new applications.

Note: There were several combinations of programs recorded in survey responses, however, only the most common combinations of programs are visually depicted in this report. The full data on the program combinations will be supplied to the State at the conclusion of the project.

For additional detail, the chart below provides a similar comparison of programs and case types for small, medium, and large counties.

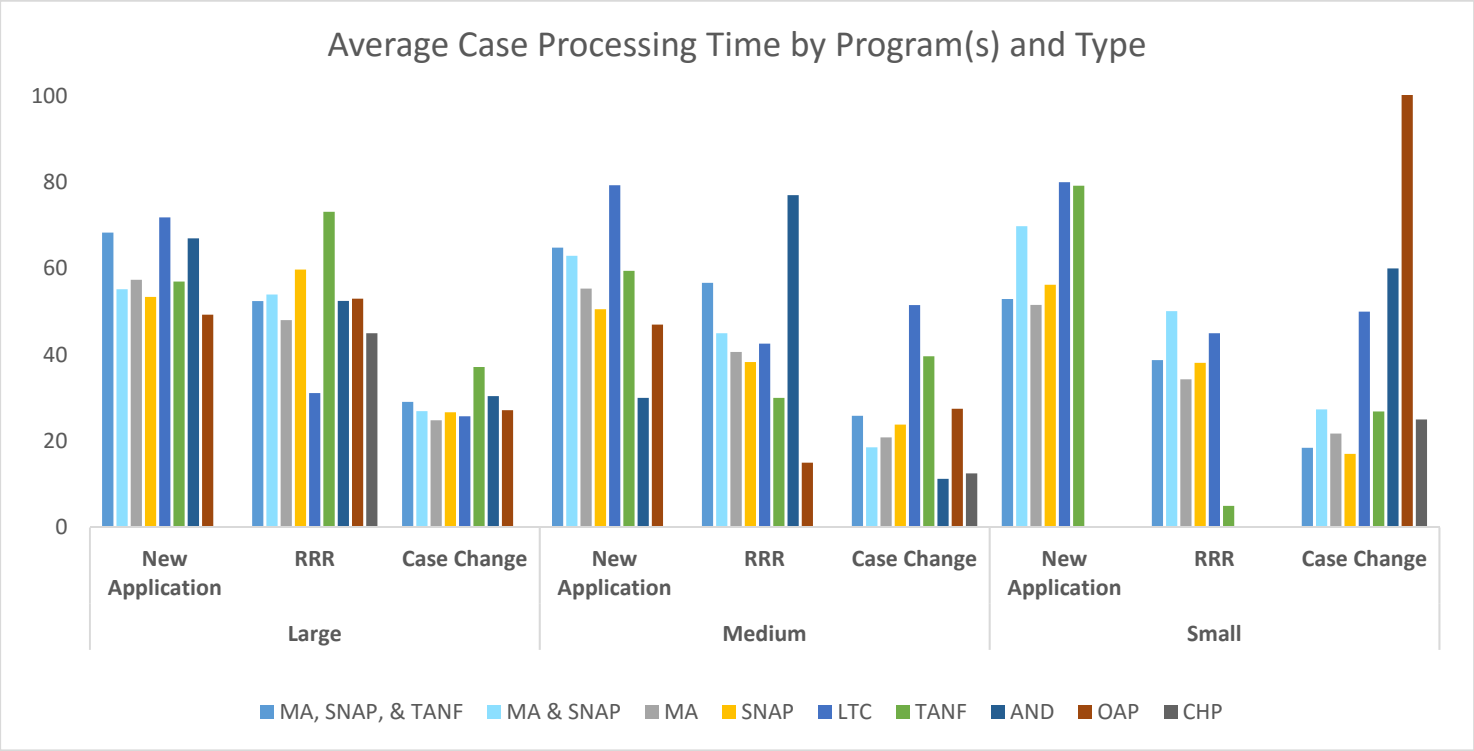

Figure 84 - 55 County Average Case Processing Time by Program(s), Type, and County Size

Additional Activities

Outside of case processing, staff in the 55 counties spend approximately 60% of their time on additional activities, which is similar to the split of activities in the nine pilot counties. The full breakdown of all the additional activities is provided in the bar graph below in the order from most to least resource demanding (this chart is similar to Figure 78, but excludes case processing).

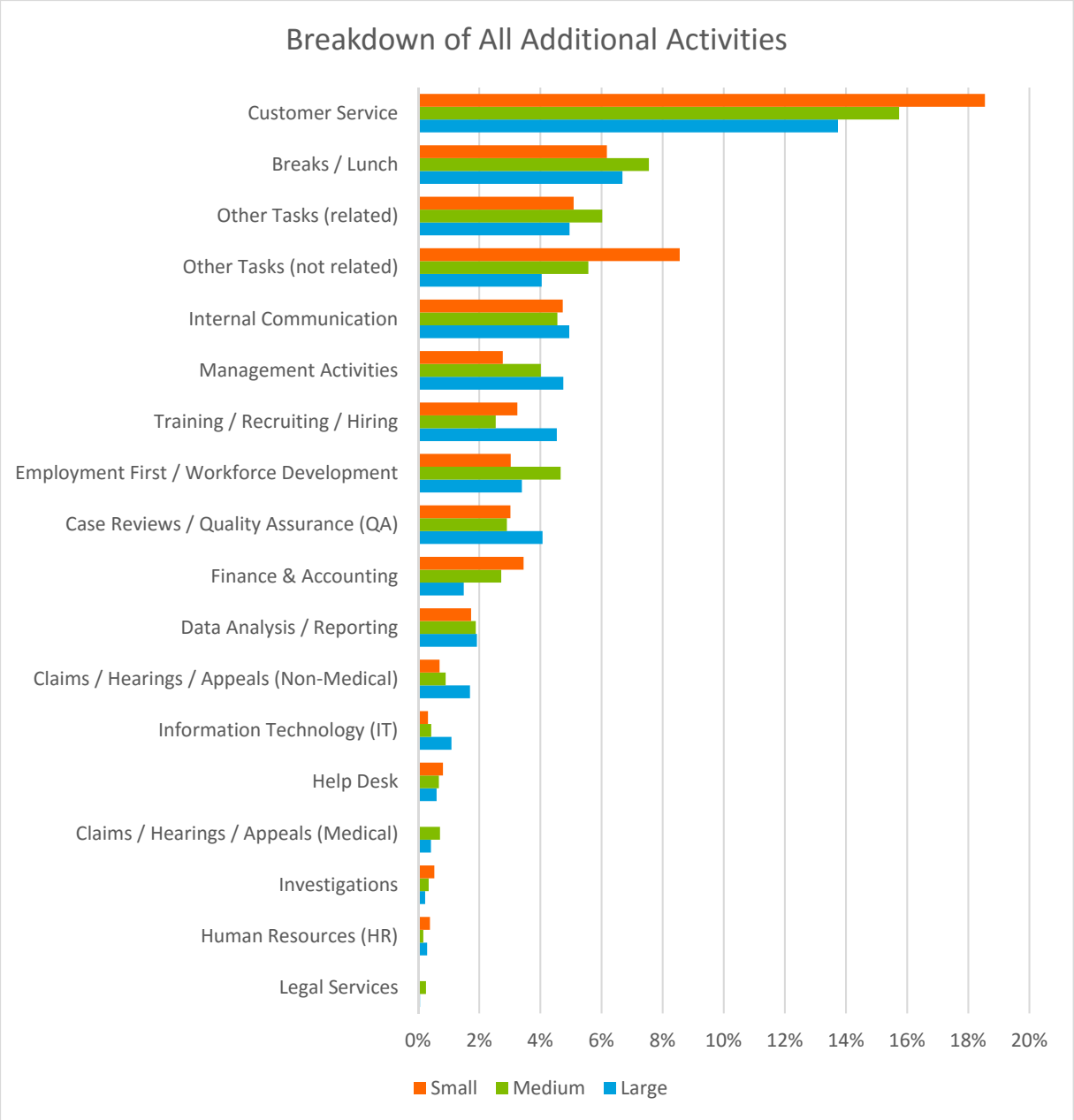

Figure 85 - 55 County Breakdown of All Additional Activities

Similar to the analysis of the nine counties, customer service takes up the vast majority of staff time outside of case processing. This could be explained by the fact that customer service activities encapsulate tasks that are strongly related to case processing and have a direct impact on the client and the overall performance of the public assistance programs. A closer look into customer service activities shows what specific tasks are performed in this category and how much time these activities take.

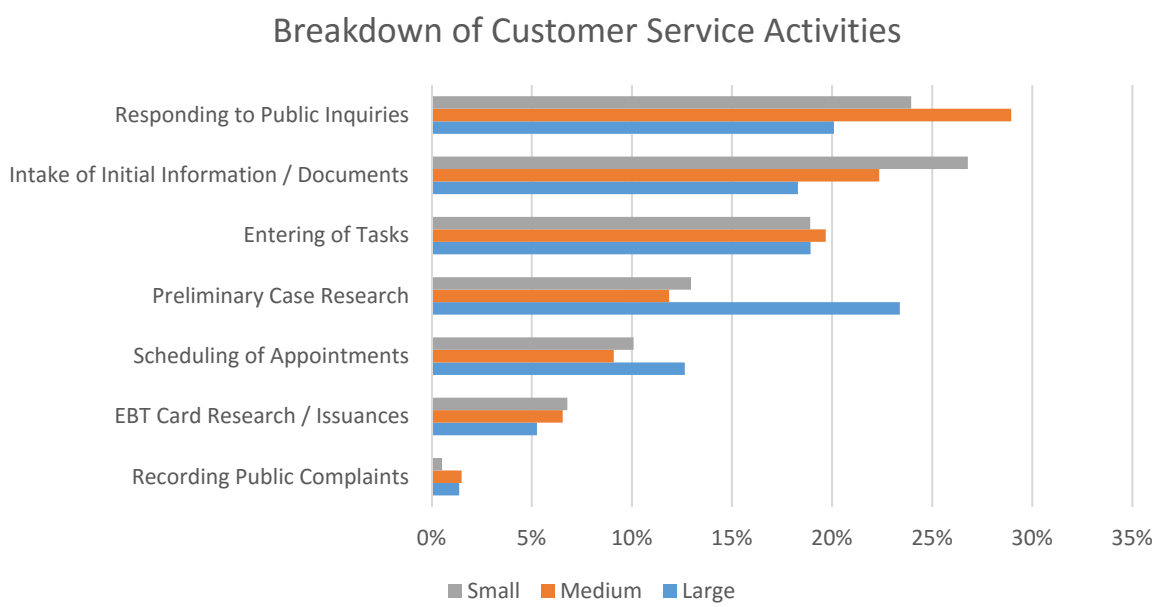

Figure 86 - 55 County Breakdown of Customer Service Activities

Based on survey responses, when providing customer service, staff spend the most time responding to public inquiries, performing an intake of initial client information, and entering tasks. For large counties, in particular, the most time-consuming customer service activity is preliminary case research. This may be due to availability of separate units within some larger counties that may dedicate more time to case research. This could also explain why case processing is slightly faster in large counties than it is in medium and small counties where separate case research units are less likely to exist. The other less time-consuming customer service activities include scheduling of appointments, EBT card issuance, and recording of public complaints.

Outside of customer service and breaks/lunch that all staff take for 30 minutes a day, this chart also shows that staff perform other tasks not captured in this table. These tasks could either be related to the seven programs in this study or could be entirely for different programs. For example, staff in small counties, in particular, tend to perform many different activities that fall into multiple functional and programmatic categories, such as instances when eligibility workers also substitute for front desk, customer service, or help with child welfare or child support.

As discussed in the analysis of the nine counties, internal communication, management activities, and training, recruiting, and hiring are also high on the list of additional activities performed in the 55 counties. These activities have a strong influence on the administration of public assistance programs and directly impact accuracy and timeliness of case processing. While these activities are very important, they also take away time that could be spent processing cases.

Overall, the results observed through the analysis of the 55 county survey data were largely similar to the findings gathered in the analysis of the nine county survey data.

The comparison of the two survey result sets helped to validate and further inform the original findings. Specifically, the data for the two surveys showed that staff across all counties spend approximately 40% of their time on case processing and 60% of their time on additional activities. The results of the two survey data also showed that of all additional activities, the largest portion of staff time is spent on providing customer service. Internal communication, management activities, and training and recruiting are also high on the list for the nine and the 55 counties. When it comes to case processing, similarities are also observed in the proportion of time spent on different types of cases – for example, across all counties new applications took slightly longer to process than RRR. In a similar vein, large counties tended to be slightly faster at processing cases than medium and small counties. Lastly, there was a similar breakdown of PEAK and non-PEAK cases that were processed by all counties with a similar proportion of time dedicated to each program.

While there were many similarities in the two survey responses, there were also a few differences. For example, the nine county survey data showed that small counties processed RRR cases extremely fast at 21 minutes, which was not consistent with large and medium counties that spent 44 and 43 minutes respectively. Since Sedgwick was the only small county represented in the nine county survey data, this statistic needed validation from a larger pool of responses. The 55 county survey data showed that small counties spent on average 41 minutes processing RRRs, which is more consistent with the processing time observed for large and medium counties. The same logic applies for processing time for case changes in small counties, where the 26 minutes observed in the 55 county data is more consistent with the results identified for large and medium counties in the nine county survey records. The comparison of the two survey responses also showed that on average the 55 counties spent six to nine minutes longer processing new applications than did the nine counties in the first survey. This could be either be a result of more efficient processes in the nine counties or slight differences in how the survey was interpreted by the 55 counties that did not participate in county visits.

6. Improved Human Services Delivery Process Model

In addition to analyzing quantitative data around case processing and additional activities, the study assessed county business processes and procedures in order to document leading practices and opportunities for improvement. We based this analysis on qualitative data received through the county survey as well as through observations made during county visits. The sections below are broken into four areas: People, Process, Technology, and Common Leading Practices. Each section responds to corresponding RFP sections.

Data Inputs

The analysis of business processes was based on the following sources of data:

- County observations
- Staff interviews
- Qualitative survey responses
- Current county process maps

6.1. People

In many job sectors, but especially in social services, people are the biggest organizational asset and their recruitment and training is crucial for efficient and effectively administering public benefit assistance programs. Currently, Colorado uses the SDC to provide “integrated competency-based training curricula” to staff throughout its 64 counties.

6.1.1 Training

When delivering training to the counties, the State is mandated to provide policy and systems-related training that is in line with Federal and State regulations. Because Colorado operates on a state-supervised, county-administered system, the counties are responsible for supplementing State training with county-specific curriculum around processes and practices. Although efforts have been made in the last year to improve state-provided training by revamping the curriculum, most county employees have been trained using the old curriculum, which was highly policy-based. Staff were expected to remember nuanced policies, which while very important, do not equip them with the practical knowledge required to administer public assistance programs in a timely manner and with minimal errors. As a result, although there are some staff who are able to start working independently within eight to 12 weeks, most staff took anywhere from six months to a year to become self-sufficient in processing cases. During this long ramp up period, the new staff required extra management and case review time, which only increased the demands on staff time. The 55 county survey showed that eligibility workers reporting zero to six months of experience took 47 minutes to process a case, while workers with more experience take an average of 25 to 30 minutes.

Moreover, staff in smaller, more rural counties had to travel long distances to attend compulsory state-trainings at the nearest training site. In addition, staff who have been

performing these tasks for many years did not have sufficient materials to stay current on process and policy changes, leading to the possibility of higher error rates. Over the last year, the State has been working to implement a new training model that puts an emphasis on process-based, client-centric approach aimed at addressing many of the issues expressed by the counties. Still, to supplement State training, counties either provide over-the-shoulder training or develop their own training materials that are more in line with that county's operations. While this approach allows for a more targeted transfer of knowledge, county trainings are not always done in fidelity because of the system of "train the trainer" which relies on county workers to deliver State trainings to their county staff. This approach can sometimes result in different county interpretations of the rules and variances in how individual counties train their people, thus resulting in potential discrepancies with Federal and State guidelines. To encourage trainings to be done in fidelity, HCPF currently requires counties to validate training materials through State leadership in order to be qualified for a training incentive program. CDHS, however, does not have a similar process at this time.

6.1.2 Turnover

As important as recruiting and training are, staff retention is even more crucial given the amount of resources required to develop staff knowledge and experience. Figure 17 earlier in the report showed that among survey participants, eligibility workers with 1-2 years of experience represented the largest response group. While there are 270 eligibility workers with 1-2 years of experience, that number goes down to 192 by years 3-4 on the job, which represents a 28% decrease. Although there could be several reasons for the decrease in the number of eligibility workers, such as promotion to manager or transfer to a different role, turnover is the most common reason for staff loss as observed in our county visits.

Either staff leave altogether or transfer out to other departments with smaller workloads or other agencies within the Department of Human Services. Several counties expressed that employee turnover is an issue that carries a negative impact on staff morale and workload management. Some of the reasons contributing to turnover are high stress levels due to large workloads and the nature of the job as a whole that requires critical thinking, emotional intelligence, and patience when dealing with challenging client interactions. Staff also expressed that the ever-increasing volume of work makes people feel like they are constantly catching up, which further contributes to staff feeling overwhelmed. The ever-growing volume of work also leaves little time for staff to invest in their own professional development and knowledge building. All these reasons carry a negative impact on team morale and lead to staff turnover. In addition, alternative job opportunities with competing salaries present an opportunity for young, talented workers to seek employment elsewhere. High turnover is particularly present in more affluent counties, where the cost of living is higher and staff have to travel large distances from more affordable areas.

6.2. Process

In addition to opportunities for improvement on the people side of the organization, similarities and differences were noted in the county business processes—some of which presented themselves as a challenge, while others as leading practices worth exploring for other counties.

6.2.1 Manual Processes

One of the most common challenges observed in the counties were inefficiencies due to highly manual, paper-based processes. While some counties choose to use automated processes provided by the State, other counties choose to complete certain tasks manually. All counties have the opportunity to make document processing an automated process. For example, when client information is received, whether by mail, in person, or electronically, many counties print, copy, and file away physical documentation in a paper file created for that case. This process is highly inefficient and resource intensive, since it requires extra time from an eligibility technician to collect all the physical documentation, make copies, and store it away, which takes away time from case processing. This process is also highly prone to error since there are opportunities for files to get lost, misplaced, or destroyed without backup, which can pose a threat to client confidentiality. Manual document-processing also often leads to duplicate work, since clients may share documentation with more than one person before seeing an eligibility worker. This may either result in several people having duplicate physical documents or a lost opportunity to scan and store them electronically the first time. If the files are available electronically, every consecutive person who touches the case could have access to all the documents in one place.

Manual document processing could also lead to workload management issues. In some counties, for example, there are dedicated resources tasked with sifting through large paper files of cases, manually splitting them among all eligibility workers, and physically dropping them off on each person's desk at the end of each day in preparation for the next morning. Not only is this process inefficient, it also does not allow for accurate and dynamic tracking of data to inform business processes and resource needs. Lastly, according to data management policies, the state may destroy case files seven years after a case is closed—to store such large amounts of data for several years without backup is not only unsafe, but also very costly given the growing demand for physical space.

6.2.2 Communication Processes

Communication issues on several different levels presented another common challenge for the counties. We group these challenges into three buckets—intercounty communication, state-to-county communication, and systems communication.

Today, no clear established business processes exist for intercounty communication, which becomes an issue when dealing with intercounty transfers. Based on current policies and procedures, if a client moves from one county to another, a caseworker in

the new county is not able to touch a case until the case is transferred to the new county. The process for case transferring is not always straightforward, since only select few people have security clearance that allows them to conduct intercounty transfers. What complicates things even further is that only one person per county has access to intercounty transfers and until that person approves the transfer, the case worker in the new county cannot administer public benefits. The limitations of the current process not only slow down case processing time, but also put a client's wellbeing at risk while the client is waiting for the case to be transferred. As a workaround, case workers in new counties can sometimes create a new application for an entirely new program on a case, which would allow them to transfer all open programs from the old county. While this may be one solution to the problem, creation of a new application is time-consuming and duplicative, since a case for the client already exists in the system.

Some counties also expressed that current state-to-county communication might be improved, particularly around email communication and portal communication. Counties expressed that communication from the State is often sporadic and requests to respond to a study, submit reports, take a training, or meet a certain requirement are provided with little notice, resulting in staff scrambling to find the time to respond, which often takes away the time from case processing. Counties expressed that they cannot adequately manage their time and prepare for these requirements; this is because there is no consistency in communication requests and timing. In addition, counties expressed that currently the way updates from the state are shared with counties is not effective or efficient. Specifically, counties mentioned that program information stretches across several locations such as website, portal, and library, which they found difficult to navigate. Difficulty stems from the information living in several locations and leads to various updates in different places. Whether a person is new or just needs a clarification on policy, counties want to be able to access one place that they can trust contains the most up-to-date information. Lack of ease of access to the most current information can have a negative impact on accurate and timely processing of applications.

6.3. Technology

In addition to people and processes, counties also experienced several challenges within technology and systems, specifically around automation tools and processes in eligibility and work management systems.

6.3.1 PEAK

With the rollout of PEAK, more Coloradans have access to public assistance than ever before, which allows people to submit and make changes to their application from the comfort of their home. This is particularly helpful to those who may live far from the nearest office, are physically impaired, or do not have the time or the finances to afford to make the trip.

Although there are many benefits to PEAK, there are also challenges that can have a negative impact on case processing. For example, one of the biggest concerns expressed by counties was duplicate or incorrect information submitted by PEAK users.

This can occur for several reasons—one is that clients can submit the information twice either by slightly augmenting some of personal information such as spelling of their name or birth date or simply making a user error when entering their information online. Some clients may also lack Internet proficiency or may not fully understand how the system works, which further contributes to duplicate or incorrect information.

In addition, PEAK does not restrict clients from submitting information multiple times and gives clients the opportunity to update their information as changes occur. While this feature allows the client to submit the most up-to-date information, it also creates some rework for eligibility workers who have to match multiple system-created customer records with existing records available for the same client. As a result, workers must either remove duplicate records or merge the content.

Eligibility workers also have to dedicate time to identifying and correcting client-entered errors and follow up with questions to clarify the information. In addition, duplication can occur if the client submits updates through multiple channels—such as through PEAK, by phone, or mail—because depending on the mode of communication, several people can be making the same update.

Lastly, every change submitted in PEAK results in a task for an eligibility worker. If the client submits 10 changes, this creates 10 tasks for the same case, generating unnecessary work.

6.3.2 CBMS

In addition to PEAK, counties expressed some challenges with CBMS, specifically issues with the backend database and connectivity between the state and county servers and other systems, which cause system errors and slowness. In addition, system updates have also been known to interfere with connectivity and cause outages sometimes for an entire workday. Opportunities also exist to make the system easier to navigate by reducing the number of screens and making it more encompassing by adding new features, such as an opportunity to leave comments on a case right in CBMS. Currently, eligibility workers have to work across several programs in order to finalize case processing, for example, by writing commentary on the case in a separate Word or Excel file and then uploading that into CBMS. Another helpful functionality that counties expressed the need for is the opportunity to flag what's urgent and perform case reviews right in CBMS to avoid multiple program use.

Staff expressed frustration about occasional system outages, errors, and overall slowness in CBMS that results in processing delays for eligibility workers. Although many staff have found workarounds to deal with the issues, most end up taking the time away from case processing to submit a help desk ticket. In addition, some counties also created processes that require supervisors to approve all tickets before they get elevated to OIT.

In addition to individual system issues in PEAK and CBMS, there are also challenges with insufficient system interoperability around PEAK, CBMS, Electronic Document

Management System (EDMS), CHATS, and TRAILS. Counties found that these systems do not always communicate well, which contributes to manual processing and rework on behalf of eligibility workers who have to collect information from different sources to process eligibility. For example, some information entered through PEAK does not always populate into the right section within CBMS or documents uploaded in EDMS are not readily available in CBMS.

6.4. Common Leading Practices

While many opportunities exist for improvement, there are also a number of leading practices implemented by counties.

6.4.1 Workload Management Systems (WMS)

One of the most significant leading practices employed by counties is the electronic workload management system, such as those developed by Denver and Arapahoe who have built their own systems to manage high volumes of work. A common feature of these systems is electronic entering and assignment of tasks into the system—a functionality that has contributed to county efficiencies. These workload management systems not only allow for accurate tracking of cases, but also deliver a record of who works on a case and how long each step takes. This allows for a detailed analysis of processing and wait times helping counties to identify inefficiencies and allocate resources based on work demands. A specific feature of Arapahoe's workload management system, "HSConnects," is that once an eligibility worker is done with a case, he or she can click next and the system automatically populates the next case based on case priority. This feature eliminates the guesswork or biased choices around case prioritization. It also speeds up the process of pulling and processing cases. In addition, the system automatically uploads scanned documents, eliminating waste and potential errors or loss of documents. Seeing the benefits of workload management systems, several counties, such as El Paso, have already decided to adopt HSConnects to help manage their growing workload. While counties benefit tremendously from workload management systems, they do require additional county resources to continue to develop and maintain the systems. The many benefits of utilizing a WMS, such as better tracking of wait and transaction times and completion rates, flagging of urgent cases, number of client interactions, and more efficient allocation of staff, are described in greater detail in Section 8.

6.4.2 County-Provided Training

In addition to workload management, some counties also made significant efforts to improve county-provided training meant to supplement state training. These county trainings try to provide a more customized approach to learning systems, processes, and policies based on individual county organizational structure and operations. El Paso, for example, has a dedicated unit that provides trainings on an ongoing basis on various topics based on common error topics – this helps to confirm that staff are aware of the latest policy or process changes and can implement them readily into their daily work. Other counties like Denver and Arapahoe also have their own training units that

provide supplemental training focused more on case processing in addition to policy knowledge. These trainings also include shadowing so that staff can learn in real time and can apply that practical knowledge in processing of their own cases. While staff benefit from supplemental county training, some counties continue to improve their training curricula by participating in State-incentivized programs (currently, only in HCPF) that vet county-training to allow for an accurate transfer of knowledge based on Federal and State regulations.

6.4.3 Team Culture

In addition to these leading practices, counties put a lot of effort into building a good team culture and creating opportunities for open internal communication, which is highly critical in an organization that relies heavily on human interactions. For many eligibility staff, helping clients in need may be exceptionally rewarding, but often many daily interactions with clients can be mentally draining and stressful. They also require high awareness and critical thinking from eligibility staff to assess a client's situation and needs properly. Counties like Mesa and Arapahoe, for example, that have created opportunities for open communication and supervisor assistance, can reap the benefits of their good team morale as it impacts the quality and speed with which staff process cases.

Overall performance improvements in some counties may also be linked to the 2014 Change and Innovation Agency (CIA) study on Business Process Reengineering (BPR). Three counties in this study—Arapahoe, Mesa, and Denver—have implemented a number of these recommendations that have contributed to county operational improvements and efficiencies. Outside of the CIA study, Eagle also engaged in their own BPR efforts and strategic planning initiatives and developed a system for supervisors to allocate work daily using a point system, all of which also helped to improve their timeliness. Despite these leading practices, opportunities for improvement described earlier in Section 6 still exist and if addressed can help improve county performance.

7. Options for Cost Allocation Model

Between the 2007 Workload Study and the current study, Colorado has seen major technology, policy, and process changes to the eligibility landscape. CBMS functionality has been upgraded, including real-time eligibility for hundreds of thousands of medical and food assistance applications. These changes present an opportunity to revisit the current cost allocation model. Adjustments to the current model described at the end of this section could promote more equitable and complete funding of county activities in support of the seven programs in a way that encourages efficiency and high quality customer service.

The current cost allocation method is described in the Human Services Fiscal Management Model provided by the Colorado Human Services Directors' Association.[7] The county administration allocation (commonly referred to as the "admin allocation") is determined by the Colorado Department of Human Services, but under current practice, is recommended to the Executive Director by the Policy Advisory Committee (PAC). Additionally, Finance Sub-PAC approves the enhanced/non-enhanced split for the overall allocation methodology for HCPF. Allocated funds support eligibility and case management for MA and adult programs, SNAP (Supplemental Nutrition Assistance Program), and administrative support. The allocation is funded from appropriations made to the Colorado Departments of Human Services and Health Care Policy and Financing. The methodology used in the allocation is not addressed in statute, but historically has considered case activity as a driving factor, and is anchored in results that were drawn from a Workload Study conducted in 2007. This Workload Study recognized that a base level of funding is needed to "open the doors" of a county office, effectively setting the floor level for the county allocations. Counties are required to provide a match for County Administration expenditures, but only need to provide the matching level of funding up to the amount expended. Any expenditures incurred by a county that exceed the allocation are subject to a closeout redistribution and federal pass-through. While SNAP, MA, AND, OAP-Med, LTC, and CHP+ are funded through county administration dollars, TANF and OAP-Cash are funded through an appropriation via a block grant.

Data Inputs

- Current cost allocation practices gathered from Colorado documentation
- TD/ABC model results
- Interviews with other states
- Reports on benefits funding from government and external parties

[7] Colorado Human Services Directors Association, Fiscal Management Manual, **http://www.coloradohsda.org/pdf/CHSDA_Fiscal_Man_Revd_2016.pdf**, 2016.

The Workload Study in 2007 calculated an average number of minutes required to complete activities in the eligibility process (the study's "resource driver"). Each year, data from CBMS provides the number of activities by county mapped to the original activity dictionary (the study's "activity driver"). Activities include completed application intakes, failed interactive interviews, denials/discontinuations issued, RRRs completed, and intercounty transfers. EBT card issuance is self-reported by the counties. These activity counts are multiplied by the minutes per activity from the 2007 survey to obtain a sum of total minutes, which are converted to a percent of statewide total minutes. Each county is allocated that calculated percentage of the available appropriation. If the calculation does not result in at least $105,329 for a county (the "open the doors" base allocation), that county's allocation is set to that number. In addition, if the allocation is below 95% of the county's allocation in the previous state fiscal year, the allocation is raised to 95%.

The State of Colorado funds the county administration of SNAP with 50% matching federal dollars, 30% State dollars, and 20% county dollars. Colorado funds the county administration of Medical Assistance based on the eligibility activity performed. Enhanced match funding is available for intake and ongoing eligibility determination activities, issuance of eligibility notices, customer service activities related to eligibility determinations, case maintenance activities relating to renewals, and more. Non-enhanced match funding is used for staff development and training, program integrity, appeals, community-based application assistance, and others. The breakdown of the enhanced and non-enhanced percentages for FY 2016-17 is below. It should be noted that the percentages of state/local funds for both the enhanced/non-enhanced allocations change slightly from year to year.

Label	Total Funds	State Funds	Local Funds	Federal Funds
Enhanced	100.00%	16.34%	8.66%	75.00%
Non-Enhanced	100.00%	32.69%	17.31%	50.00%

Figure 87 – FY 2016-17 Enhanced and Non-Enhanced HCPF Match Rates

In the 2016-2017 budget year, approximately 63% of HCPF allocations were enhanced (funds using the "enhanced" split noted above); the rest was non-enhanced or "regular".

At the end of the fiscal year, unspent funds from counties' admin allocations are distributed to overspent counties through a multiple iteration process that favors counties that overspent their allocations to a lesser degree (e.g., a county that overspent its allocation by 2% would be treated more favorably in the redistribution process than a county that overspent by 50%). Any deficits remaining at the close of the redistribution process will be eligible for federal pass-through funds, which can vary from 33% up to 80% reimbursement for remaining deficit balances. The State does not match federally reimbursed funds or Federal pass through funds.

For TANF, the Works Allocation Committee (WAC) was created in statute under C.R.S. Section 26-2-714 to provide input to the State Department of Human Services to "set the amount of the county block grants based on demographic and economic factors within the counties." Historically, the State department has deferred to the WAC's

recommendations. Because the statutes do not dictate the specific methodology to be used in allocating, various factors are considered, typically by ad hoc sub-committees that make recommendations to the appointed members of the WAC.

In 2015, the cost driver factors for TANF included four demographic factors and two expenditure factors weighted for their relative significance.[8] The demographic factors make up 50% of the total formula, representing the population most likely to participate:

- Child poverty population (12.5% of total formula)
- Number of children enrolled in SNAP (12.5%)
- Number of children enrolled in SNAP whose family income is below 50% of the Federal Poverty Limit (12.5%)
- Number of children who qualify for MA/CHP+ (12.5%)

Expenditure factors make up another 30% of the formula, which is based on county expenditures in previous state fiscal year on basic cash assistance and state diversion. The final 20% is based on county expenditures in the previous state fiscal year on all other Colorado Works block grant activities.

In addition, counties who expended greater than 70.9% of their total Colorado Works expenditures in the previous State fiscal year on Basic Cash Assistance and State Diversion are awarded the greater of the amount calculated or a minimum allocation of 140% of the amount they spent on BCA and State Diversion. Counties are held to a maximum decrease of 5% from their prior year allocation and to a maximum increase of 25% over their prior year allocation. Counties with allocations less than $100,000 are kept from any allocation reduction.

The Colorado Works/TANF allocation itself is comprised of two components: the federal share and the county share, the latter commonly referred to as Maintenance of Effort (MOE). The county MOE is a required level of funding that the county must contribute as a condition of receiving its federal TANF funds. Irrespective of the level of TANF expenditures the county incurs in the fiscal year, it must meet its MOE spending level. Unspent TANF balances are retained by the county, within limitations, and revert to the state's long-term reserves when that limit is exceeded. CDHS distributes a letter to each county giving the county the ability to elect how or whether they would like their

[8] State Allocations, Brian Kenna, Deputy Director, Adams County Human Services Department, https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwj17IuZ54HUAhVBzoMKHWHuDOAQFggpMAA&url=http%3A%2F%2Fhsfoa.com%2Fyahoo_site_admin%2Fassets%2Fdocs%2FBrian_05-2015_State_Allocations-Accounting_Conference.147144450.pptx&usg=AFQjCNEw5APpWtH--9-eKr-KS1AYcLQKNw&sig2=Oqd-KYglsCdI7ctzmIWpUw&cad=rja, presented at the CGHSFOA Accounting Conference, May 14, 2015.

Colorado Works/TANF funds to be used to cover any anticipated deficits in child care, child welfare, and core services.

7.1. Benchmarking Purpose and Method

To conduct this analysis, Deloitte documented the current cost allocation model characteristics and modeled scenarios based on other practices. Colorado's cost allocation method has the following broad characteristics.

Cost Allocation Model Characteristic	Current Approach
Food and Medical Split	Every county receives their allocation split into CDHS and HCPF according to the statewide appropriation
Medical Enhanced and Non-Enhanced Split	Every county receives their HCPF allocation split into enhanced and non-enhanced according to the statewide average
State and County Share Split	SNAP is 20% county share, HCPF enhanced is 8.66% county share, HCPF non-enhanced is 17.31% county share, and TANF requires a fixed maintenance of effort, approximately 15% of the block grant
Allocation to Counties	Uses workload and minutes per case, with input from committees with county representation
Year-End Redistribution	Underspent counties' shares are redistributed before the end of the fiscal year
Incentives	All 64 counties have contracts with HCPF to receive performance-based financial incentives
Cost of Living	Colorado does not take into account cost of living when allocating costs to counties
Minimum Base Allocation	County allocations cannot drop below 5% of the previous year's allocation
"Open the Doors" Base Allocation	County allocations cannot drop below the "open the doors" cost calculated in 2007

Figure 88 – Colorado Cost Allocation Model Characteristics

The analysis examines how each of these characteristics contributes to whether a county overspends, because the adjusted allocation should promote full funding for as many counties as possible. The allocation of cost by program (food and medical split) is addressed in Section 7.4. The other splits, allocations to counties, year-end redistribution, incentives, and cost of living practices are addressed in Section 7.5. The base allocations are addressed in Section 7.6.

Colorado provided data on overspending and underspending in state fiscal years 2014, 2015, and 2016 as shown in Section 3.2.4. In state fiscal year 2016, 73% of counties overspent their CDHS allocation, and 44% overspent their HCPF allocation. In state fiscal year 2014, more counties overspent their CDHS allocation, but very few counties overspent their HCPF allocation. In most years, medium sized counties are less likely to overspend either allocation than small or large counties.

County Size	Number of Counties	Number Overspent CDHS	Percent Overspent CDHS	Number Overspent HCPF	Percent Overspent HCPF
Small	32	26	81%	17	53%
Medium	22	12	55%	6	27%
Large	10	9	90%	5	50%
All	**64**	**47**	**73%**	**28**	**44%**

Figure 89 - Overspent and Underspent Counties in State Fiscal Year 2016

County Size	Number of Counties	Number Overspent CDHS	Percent Overspent CDHS	Number Overspent HCPF	Percent Overspent HCPF
Small	32	23	72%	16	50%
Medium	22	7	32%	7	32%
Large	10	7	70%	4	40%
All	**64**	**37**	**58%**	**27**	**42%**

Figure 90 - Overspent and Underspent Counties in State Fiscal Year 2015

County Size	Number of Counties	Number Overspent CDHS	Percent Overspent CDHS	Number Overspent HCPF	Percent Overspent HCPF
Small	32	24	75%	1	3%
Medium	22	16	73%	0	0%
Large	10	10	100%	3	30%
All	**64**	**50**	**78%**	**4**	**6%**

Figure 91 - Overspent and Underspent Counties in State Fiscal Year 2014

As a part of this analysis, Deloitte also compared current methods to the states identified in section 3.3 to gather information on as many models as possible. The results of this comparison are in Section 7.2 below. Deloitte reviewed reports on state-supervised, county-administered human services programs produced by federal agencies, think tanks, nonprofits, and academic institutions. These papers provided a broader survey of many allocation practices to add context to the interviews conducted.

Deloitte also reviewed white papers from professional associations such as Colorado Counties, Inc. to examine alternative allocation methods that have already been proposed. Colorado Counties, Inc. (CCI) has raised the concern of allocating to counties by application, when many individuals are served through one application.[9] However, allocating by application would only be inaccurate if counties have very different numbers of people applying with each application. CCI also suggested that the state use client satisfaction, accuracy of determination, timeliness, number of appeals,

[9] Colorado Counties, Inc. County Administration Background, **http://coloradohsda.org/pdf/CCI_CA_Wh_Paper_2015-16.pdf**.

outcomes, staff satisfaction, and turnover to inform the allocation to counties. While none of these measures are significant drivers in the cost to process an application, they could be considered as future incentives.

Lastly, Colorado specifically requested an analysis of benchmarks provided by the American Public Human Services Association (APHSA), which are provided in Section 7.3.

7.2. Findings from Other States

In general, state-supervised, county-administered human services programs may be more expensive to administer than state-administered programs. A recent audit of the Food and Nutrition Service found that, in general, state-supervised, county-administered SNAP programs are more expensive to administer per household per month than state-administered programs.[10] However, additional analysis may be necessary to assess differences in individual state funding structures that may impact the cost of administering SNAP.

State	Federal Cost-Per-Case Per Month	Federal Share of Administrative Costs	Households Participating (Monthly)
California	$34.06	$825,316,195	2,019,272
New Jersey	$26.23	$138,400,032	439,695
North Dakota	$25.06	$ 7,521,986	25,011
Minnesota	$21.22	$ 66,304,561	260,437
New York	$18.60	$379,028,505	1,698,559
Virginia	$18.23	$ 97,049,140	443,607
Colorado	$16.87	$ 47,381,997	234,098
Wisconsin	$11.76	$ 59,386,007	420,833
North Carolina	$10.52	$ 96,058,619	761,105
Ohio	$9.55	$ 97,648,695	851,972

Figure 92 - FY 2014 Federal Cost-Per-Case for County-Administered States

The OIG calculated the cost per case per month above by taking the full federal share and dividing by monthly participating households, then dividing by twelve. This method correctly states the federal share, but understates the full cost per case per month because state and local funds are not included. Still, this study is a useful comparison because all states and counties must provide a 50% match. This study shows that Colorado is among the lowest-cost county-administered states for providing SNAP.

[10] United States Department of Agriculture, Office of the Inspector General, Audit Report 27601-0003-22: SNAP Administrative Costs, **https://www.usda.gov/oig/webdocs/27601-0003-22.pdf**, September 2016.

However, the cost of providing SNAP in state-administered states is much lower. The FY 2014 average administrative cost per SNAP case (i.e., per household) per month for these 10 county-administered states is over $21, as opposed to under $10 per case for the state-administered states.

7.2.1 Virginia

Virginia uses a state-supervised, county-administered model, but differs in several key ways from how Colorado provides allocations and governance. A summary table at the end of this section evaluates Virginia's model against the key characteristics of Colorado's allocation model. In Virginia, the state Department of Human Services is able to terminate local social services directors or take over local departments. The state is only obligated to reimburse up to 50% of the cost of administration in most cases, but reimburses considerably more. Counties cover an average of 31% of their costs.

In addition, in Virginia the counties must meet their funding obligation, whereas in Colorado, counties can forgo part of their admin allocation to save county costs. Virginia counties rarely underspend or overspend, and overspending is entirely the responsibility of the county. If underspending is reported early enough, funds can be reallocated, but the state reported that only approximately three to five out of 120 counties do this.

Funds are allocated based on a "hold harmless" principle, meaning they receive a base allocation that is the same every year. Until around 1990, the entire allocation was based on workload; the base allocation was used starting in 1991. After the base allocation, counties are funded incrementally as new funds come in based on caseload. The amount of funding after the base allocation is known as "pass through", and is about 35% federally reimbursed. Virginia has considered using a formula to determine the allocations, but the issue is politically fraught, as they estimated that it would cost an additional $50M to hold counties harmless after redistributing funds based on a formula. The total allocation is approximately $600M a year.

Virginia uses random moment sampling to allocate costs on a statewide basis. Counties submit costs monthly for reimbursement. The state tries to maximize the federal reimbursement as much as possible. Virginia's equivalent of HCPF contracts with the equivalent of CDHS to provide eligibility services.

Virginia also uses five regional centers to provide quality control for the 120 counties and act as policy advisors. Training is conducted at the state level, with some in-house trainers in the counties to do refreshers or new worker training. The regional offices are funded through the state appropriation, and use RMS to allocate their costs to federal reimbursements. Virginia has recently transitioned to a new eligibility system which has led to wide-ranging business process changes and improvements. There is a state-level division of enterprise systems, though funding for systems upgrades is not readily available. Virginia does not have a robust workload management system, and workload management has been an issue in the past. The state currently has an RFP out to make workload management mobile.

Applicants can apply online, and are beginning to be able to apply over the phone with a centralized state call center. Each county provides some resources for program integrity and investigations. Investigations of Medical Assistance provider claims are handled by the state.

Cost Allocation Model Characteristic	Virginia Approach
Food and Medical Split	The state determines whether county spending qualified for food or MA funding using RMS.
Medical Enhanced and Non-Enhanced Split	The state determines whether county spending qualified for enhanced or non-enhanced funding using RMS.
State and County Share Split	The average county share is 31 percent.
Allocation to Counties	Based on a base allocation established in the early 1990s, with additional funds distributed by workload when available.
Year-End Redistribution	Counties typically spend up to their allocation. When counties notify the state early enough in the fiscal year that they will under-spend, funds can be reallocated. Overspent counties are responsible for their over-spend.
Incentives	Performance-based financial incentives are not available.
Cost of Living	Virginia does not take into account cost of living when allocating costs to counties.
Minimum Base Allocation	All allocations are based on the prior year.
"Open the Doors" Base Allocation	There is no “open the doors” base allocation.

Figure 93 - Virginia Cost Allocation Model Characteristics

7.2.2 Minnesota

In contrast to Colorado and Virginia, Minnesota does not provide a state appropriation as part of the admin allocation, but does provide some centralized services such as case management, a call center, and funding for fraud prevention and program integrity. Case managers are funded out of a state social service funds after financial workers determine eligibility. Minnesota conducts a quarterly RMS-based time study and passes federal funds directly to the counties each quarter as a reimbursement for funds entered in a centralized state system. Each county individually budgets for their portion of the admin allocation, assisted by their RMS data from previous years. Counties submit biannual service agreements stating what they anticipate spending on each program.

The exception is TANF, which is passed from the state at the beginning of each year. While in Colorado, TANF funds can be spent on benefits or on admin, Minnesota allocates a specific amount for admin for each county. Counties are responsible for all overspending on TANF.

Minnesota is considering directly charging time rather than providing reimbursements because they suspect the state may not be claiming the maximum reimbursement they are eligible for.

Minnesota implements business process improvements most often as a result of systems upgrades. Minnesota is currently undergoing a systems modernization that will integrate benefits delivery systems. Minnesota does not require counties to use a state-wide case assignment system, and does not provide a robust workload management system. As a result of expanded Medicaid eligibility, counties handle fewer Medicaid cases because participants apply through a state-run website. However, many participants are more comfortable going to county human services departments in person.

Minnesota also encourages counties to enact improvements to capture enhanced federal share.

Minnesota counties handle fraud, except for Medicaid provider fraud and TANF grantee fraud, which is handled by the state. Fraud activities are funded by the state, but counties who recover overpayments can keep a portion of the recovered funds. The state also handles claims, with counties participating in appeals and hearings.

Cost Allocation Model Characteristic	Minnesota Approach
Food and Medical Split	The state uses RMS to reimburse the county for quarterly expenses incurred.
Medical Enhanced and Non-Enhanced Split	The state uses RMS to reimburse the county for quarterly expenses incurred.
State and County Share Split	The state does not provide funds to reimburse county expenses, but does fund centralized case management and a call center, and funds counties' program integrity efforts.
Allocation to Counties	Counties formulate their own budgets, and then are reimbursed through RMS. For TANF, Minnesota allocates a specific amount for admin to counties.
Year-End Redistribution	There is no year-end redistribution.
Incentives	Performance-based financial incentives are not available.
Cost of Living	Counties take into account their cost of living when formulating their budgets.
Minimum Base Allocation	There is no minimum base allocation.
"Open the Doors" Base Allocation	There is no "open the doors" base allocation.

Figure 94 - Minnesota Cost Allocation Model Characteristics

7.2.3 Maryland

Deloitte found that Maryland uses state employees in county offices to administer programs. Maryland uses incentives to encourage counties to serve a certain percentage of eligible participants, and reallocates underspent counties' funding to overspent counties at year-end. Larger counties tend to go outside of their admin allocation to fund overspending. For SNAP, Maryland provides three weeks of in-house training on using the eligibility system, and two to three weeks on SNAP policy. In

addition, some counties provide their own training sessions. However, continuing education is described as an issue that needs attention. Turnover is not an issue, as many practitioners spend their entire careers in the same county office.

7.3. Benchmarks with the American Public Human Services Association (APHSA)

APHSA provides a maturity model that can be used to measure financial processes in the provision of human services.[11] This maturity model is based on APHSA's business model for horizontal integration of health and human services.[12] Increased integration and interoperability, such as "no wrong door policies", were a consistent theme brought up during interviews with the nine pilot counties. APHSA proposes the Human Services Value Curve, developed during a 2011 Human Services Summit and attended by dozens of top state executives leading health and human service departments across the country. The Human Services Value Curve is a framework for describing a human service organization's journey toward ever-expanding horizons of outcomes, under the premise that growing outcomes-orientation drives innovations in the way work is organized and technology innovations. The resulting increase in capacity enables human services organizations to mature and deliver broader and more valuable outcomes. The four steps, each driving increasing efficiency and effectiveness in achieving outcomes, include the regulative business model, the collaborative business model, the integrated business model, and the generative business model.

The guidance on the business model describes:

- **Regulative business model.** The focus is on delivering services to constituents for which they are eligible while complying with categorical policy and program regulations.
- **Collaborative business model.** The focus is on ensuring the optimum mix of services for constituents working across agency and programmatic boundaries.
- **Integrative business model.** The focus is on addressing and solving the root causes of client needs and challenges by seamlessly coordinating and integrating services.

[11] American Public Human Services Association, HEALTH AND HUMAN SERVICES INTEGRATION MATURITY MODEL 2.0, **http://aphsa.org/content/dam/aphsa/pdfs/NWI/APHSA%20Maturity%20Model_2%200.pdf**, 2015.

[12] Cari DeSantis, APHSA National Workgroup on Integration, American Public Human Services Association, **http://www.aphsa.org/content/dam/aphsa/pdfs/NWI/NWI%20Business%20Model-Final_8.17.12.pdf**, August 2012.

- **Generative business model.** The focus is on generating healthy communities by co-creating solutions for multi-dimensional family and socio-economic challenges and opportunities.

Based on findings from the interviews in the nine pilot counties, the State of Colorado is currently operating under a regulative business model and is on the cusp of developing a collaborative business model.

The maturity model's specific section on financing describes:

Category	Regulative	Collaborative	Integrative	Generative
Provision of funding	Funding is provided by a variety of federal, state, local, and external sources and distributed to programs in conformance with strict cost allocation rules and for the purposes of narrowly defined tasks/services. Most funding cannot be moved within a program for purposes outside of statutory or regulatory limits.	Funding is provided same as in Regulative level; cost allocation rules followed, and in general, no tasks are allowed that are not related to specific programs. However, some tasks/services can be adjusted that support some coordination with partnering organizations within the general programmatic areas that are typically only allowed through state match or state-only dollars, local dollars, or other supplemental funding sources.	Funding is provided to support highly integrated services through proactive staff work across the enterprise to assist program participants' use of a broad range of multi-program services, benefits, organizations, and other resources. Continuous, intentional use of flexible, data-driven, and alternative financing approaches is explored within and across the existing funding authorities throughout the enterprise.	Flexible financing approaches (e.g., blended/braided funding, pay-for-success, multisector initiatives) are consistently used and modified based on feedback loops and through the use of enterprise-wide data metrics and analytic tools established across and external to the enterprise to assist program participants use broad range of related services, benefits, organizations, and other resources.

Analysis: The State of Colorado is using the **regulative** business model for provision of funding. The State's rules do not yet make accommodations for seeking and using outside funding from partnering organizations.

Category	Regulative	Collaborative	Integrative	Generative
How priorities are set	Decisions are highly mindful of operational and process compliance constraints attributable to funding sources and cost-allocation methodologies.	Same as in Regulative level but high value placed on collaboration with other partner organizations that may receive funding from other sources. Together, they work toward achieving shared goals.	Same as in Collaborative level, yet the enterprise seeks to maximize its effectiveness by flexibly leveraging various funding sources to achieve improved shared goals and outcomes across the enterprise.	Same as in the Integrative level but the enterprise and community partners not only place a high value on pooling resources to achieve shared outcomes, but place equally high value on proactive and routine seeking of new and innovative mechanisms to increase financial resources to support or even replace traditional funding streams.

Analysis: The State of Colorado is using the **collaborative** business model for how priorities are set. Colorado is unique among state-supervised, county-administered human services providers in bringing county staff to the table when discussing the formula and process for the admin allocation. A qualitative study on state-supervised, county-administered TANF programs stated "Selected county commissioners and community stakeholders play a formal role in approving statewide program rules for the CDHS, and counties have considerable flexibility in designing their TANF programs within those parameters. This flexibility includes designing not only the employment and supportive services but also the approaches for serving teen parents and other fundamental program elements. Colorado counties join with state staff to collectively determine how federal funds are distributed to counties. Counties are responsible for contributing the full amount of the required nonfederal spending."[13]

[13] The Urban Institute, OPRE Report 2015-42: A Descriptive Study of County- versus State-Administered Temporary Assistance for Needy Families Programs, **http://www.urban.org/sites/default/files/publication/53576/2000245-A-Descriptive-Study-of-County-Versus-State-Administered-Temporary-Assistance-for-Needy-Families-Programs.pdf**, May 2015.

Category	Regulative	Collaborative	Integrative	Generative
Risk	Little to no risk as priorities reflect constraints attributable to funding sources largely measuring outputs and inputs.	Risk is somewhat higher and dispersed among partnering organizations as priorities reflect increased focus on identifying collaborative financing among those working toward shared goals, while still being risk averse.	Risk is shared across the enterprise upon testing of new financing solutions and alternatives emphasizing solutions-oriented approaches toward shared goals and outcomes.	Risk is shared across the enterprise and community partners upon testing and implementing new financing solutions and alternatives emphasizing solutions-oriented approaches toward achieving shared goals and outcomes. Continuous feedback loops, including use of data and analytics to identify (social) return on investment opportunities, allow re-prioritization of allowances for modification of funding distribution to achieve shared outcomes.

Analysis: The State of Colorado is using the **regulative** business model for risk; funding is based on measurable inputs.

Figure 95 - Table of Maturity Model's Section on Financing

As Colorado continues to incentivize community partnerships, the state and counties may want to consider alternative funding models.

7.3.1. Allocation of Costs by Program

Throughout the year, expenditures entered into CFMS are allocated to programs through random moment sampling (RMS). Counties receive a reimbursement from pools of state and federal funds according to the funding formulas described in Section 3. Some counties also use alternative methods to allocate costs such as full time reporting (i.e., cost distribution based on time spent per activity), which is more accurate than cost allocation through RMS. During interviews, some counties reported taking a proactive approach to direct code their expenses in CFMS, but many other counties

may not do this. If counties rely entirely on RMS, they may have little control over how their expenditures are allocated to funding pools. This study provides an alternative to RMS and uses county activities, times, and workload as reported in the county survey to determine cost allocations to programs. The following paragraphs provide a comparison of costs by program and county based on CFMS reported costs and cost model survey results.

The collection of survey results for the nine counties and the analysis of surveyed activities and their associated costs, showed that the total CFMS reported costs for the nine counties in 2016 are greater than the total cost model results for the nine counties. Based on the current level of effort and existing business processes, the nine counties are spending in total $6,298,896.38 more than what they should be spending according to cost model results. Of the seven programs in the study, SNAP, TANF, and OAP-Cash are spending more than what the cost model results indicate they should. The rest of the programs should receive more funding than what their current reported costs indicate even though collectively the nine counties overspend on the seven programs in the study.

A closer analysis of SNAP costs shows that SNAP expends more funds despite a decreasing SNAP caseload. This could be a result of an incorrect allocation of funds among SNAP, MA, and other programs. This observation is consistent with the cost model results shown for MA, which indicate that MA costs for the nine counties are under-reported and should be $4,402,614.96 more than what is currently being spent by the program. In the analysis of TANF, the cost model results show that counties should spend $2,695,003.87 less on TANF than what the CFMS reported costs show for this program. The reason more costs are reported for this program is because TANF funds are more flexible and can be used for programs and costs that are tangentially related to TANF benefits, such as providing transportation for TANF recipients to attend appointments or educational programs. They also carry over from year to year, making them more accessible to counties. OAP-Cash is overspending by $177.241.18 according to the cost model results.

Program	Cost Model Results	CFMS Reported Costs	Delta - CFMS
AND	$1,627,425.92	$1,041,911.43	$585,514.49
CHP+	$465,518.01	$11,502.99	$454,015.02
Colorado Works (TANF)	$3,739,868.27	$6,434,872.14	($2,695,003.87)
LTC	$2,509,736.95	$1,913,045.18	$596,691.77
Medical Assistance	$27,753,589.55	$23,350,974.59	$4,402,614.96
OAP - Cash	$1,105,537.37	$1,282,778.55	($177,241.18)
SNAP	$23,697,746.97	$33,163,234.54	($9,465,487.57)
Grand Total	**$60,899,423.04**	**$67,198,319.42**	**($6,298,896.38)**

Figure 96 – Comparison of Cost Model Results and CFMS Reported Costs by Program for Nine Pilot Counties for Calendar Year 2016

The cost model results also show that Long-Term Care (LTC) is more costly to provide than CFMS indicates. LTC cases have become more complex in recent years as

applicants tend to have more complicated financial holdings—such as annuities and reverse mortgages—that must be analyzed along with the application. Applications, RRRs, and case changes can take many hours to process. At the same time, LTC cases are a small portion of overall caseload compared to MA and SNAP applications. LTC cases can also be concentrated in certain counties with more elderly populations. All of these factors together mean that it can be difficult to measure the true level of effort required across the state to provide LTC, which contributes to the widely divergent results between this study and CFMS.

Cost model results also indicate that CHP+ costs are greater than what CFMS reported costs show. This could be because of the aid hierarchy in CBMS that affects CHP+, LTC, and OAP-Med cases. Because MA includes all aid codes, counties may not know how to charge expenditures (i.e. salary/fringe, etc.) to these programs until an eligibility determination has been made. For instance, when a county receives an application for MA, it charges those expenditures to HCPF county administration. Once all client's data is entered in the system and an eligibility determination is made, CBMS then provides the aid code (LTC, CHP+, and OAP-Med) for which the client is eligible. When an application is first received, the county does not know which aid code CBMS will assign to the client and most likely charges any expenditures to regular HCPF county administration. In addition, because CHP+ is a relatively low-volume program, an outlier registered through RMS or in the survey for this study can contribute to a large variation in reported cost.

The table below shows the breakdown of cost model results and CFMS reported costs for CDHS and HCPF programs. In HCPF, MA includes OAP costs related to medical assistance.

Program	Cost Model Results	CFMS Reported Costs	Delta to CFMS
CDHS Admin Allocation (AND, OAP-Cash, and SNAP)	$26,430,710	$35,487,925	($9,057,214)
HCPF Admin Allocation (MA, CHP+, and LTC)	$30,728,845	$25,275,523	$5,453,322
Total Admin Allocation	**$57,159,555**	**$60,763,447**	**($3,603,893)**
TANF	$3,739,868	$6,434,872	($2,695,004)
Grand Total	**$60,899,423**	**$67,198,319**	**($6,298,896)**

Figure 97 - Comparison of Cost Model Results and CFMS Reported Costs by Funding Stream for Nine Pilot Counties for Calendar Year 2016

The analysis of CFMS reported costs and cost model results indicates that CDHS costs are over-reported in CFMS and HCPF costs are under-reported. According to the calculations, the nine counties require $5,453,322 in additional funding for HCPF programs, CDHS programs should spend $9,057,214 less in county administration costs collectively for the nine counties, and TANF overspends its appropriation by $2,695,004. Currently Colorado's allocation methodology uses the same split between

HCPF and CDHS programs—53% CDHS and 47% HCPF—for all counties in state fiscal years 2016 and 2015. This split is based on the amount of federal and state funds available to the programs, along with the agreed upon county share. These appropriations are determined first and then distributed to the counties by workload. This approach may lead to the amount appropriated not matching the resources required by each program.

Based on the analysis of county activities and their associated costs, the table below indicates how much each county should be spending for CDHS and HCPF program activities (Cost Model Results); how much each county is currently spending on CDHS and HCPF program activities (CFMS Reported Costs); and how much was allocated to each county for CDHS and HCPF program activities in the 2016 state fiscal year, including the TANF appropriation (SFY 16 Allocation).

	Cost Model Results			CY16 CFMS Reported Costs			SFY 16 Allocation		
County	**CDHS**	**HCPF**	**TANF**	**CDHS**	**HCPF**	**TANF**	**CDHS***	**HCPF**	**TANF****
ALAMOSA	$417,688	$463,630	$34,451	$474,471	$456,427	$82,888	$460,502	$445,180	$82,888
ARAPAHOE	$3,917,376	$5,944,240	$637,455	$5,677,635	$4,407,908	$961,168	$5,763,715	$5,218,059	$961,168
DENVER	$14,879,241	$13,620,564	$2,208,439	$17,619,243	$12,209,132	$2,815,310	$9,549,397	$8,519,881	$2,815,310
DOUGLAS	$559,078	$1,066,655	$71,010	$626,731	$845,956	$315,901	$817,755	$775,798	$315,901
EAGLE	$202,611	$698,231	$21,959	$544,794	$468,652	$155,609	$293,929	$303,685	$155,609
EL PASO	$4,803,073	$6,843,473	$550,725	$7,987,516	$5,194,929	$938,613	$6,703,435	$5,972,845	$938,613
HUERFANO	$125,379	$148,544	$21,440	$170,478	$165,369	$49,370	$174,685	$164,873	$49,370
MESA	$1,483,064	$1,879,930	$184,149	$2,329,152	$1,461,759	$1,101,211	$1,935,505	$1,739,767	$1,101,211
SEDGWICK	$43,199	$63,578	$10,239	$57,904	$65,391	$14,802	$54,941	$49,549	$14,802
Total	**$26,430,710**	**$30,728,845**	**$3,739,868**	**$35,487,925**	**$25,275,523**	**$6,434,872**	**$25,753,864**	**$23,189,637**	**$6,434,872**
Percentages	**46.24%**	**53.76%**		**58.40%**	**41.60%**		**52.62%**	**47.38%**	
Combined CDHS and HCPF Total	**$57,159,555**			**$60,763,447**			**$48,943,501**		
Grand Total	**$60,899,423**			**$67,198,319**			**$55,378,373**		

* SFY 16 CDHS Allocation includes OAP-Cash Reported Costs (through CFMS)

**TANF is based on SFY16 Reported Costs (through CFMS) as this is an appropriation and not an allocation

Figure 98 – Comparison of Cost Model Results, CFMS Reported Costs, and SFY 16 Allocation by Funding Streams for Nine Pilot Counties

The comparison of total cost model results and SFY 16 allocation and TANF appropriation in the table above indicates that based on current business processes, the

nine counties should receive an increase of $5,521,050 (equivalent to 10%) to meet their workload requirements. This figure does not take into account county work delays and backlogs. However, further analysis of the cost model results and reported CFMS spending for CDHS, HCPF, and TANF shows that the nine counties are spending $6,298,896 (equivalent to 10.3%) more than what the cost model indicates they should. So while the total gap between allocated and reported costs for all programs is $11,819,946, this gap could be closed by increasing State county administration allocation and TANF appropriation by $5,521,050 and at the same time reducing county spending by $6,298,896. Analysis of strictly county administration dollars (i.e., excluding TANF) shows that while SFY 16 allocation for CDHS and HCPF programs was $48,943,501, counties spent $60,763,448 in CFMS reported costs. Cost model results for CDHS and HCPF programs, however, shows that the nine counties require $57,159,555 in county administration dollars. This breakdown indicates that in order to administer CDHS and HCPF programs, the nine counties should be allocated $8,216,054 more and at the same time reduce their spending by $3,603,892. Based on this model, the counties will be receiving the appropriate levels of funding necessary to meet the workload requirements. It should be noted that this analysis is based on current county business processes and current levels of efforts, suggesting that any related changes or efficiencies could have an impact on current cost model results.

In addition to the analysis of total program costs, the table also provides a breakdown of cost model results, CFMS reported costs, and SFY 16 allocation for CDHS and HCPF by county. According to the current allocated costs, the split between CDHS and HCPF program costs is approximately 53% and 47% respectively. Based on CFMS reported costs, that split is 58% for CDHS and 42% for HCPF. According to cost model results, however, there should be close to a 46%/54% split between CDHS and HCPF program costs. This indicates that CDHS costs are overstated and HCPF costs are understated, especially given that SNAP case volumes have decreased in the past few years, while MA case volumes have increased. This has changed since the 2007 study due to the passage of the Affordable Care Act and the requirement for all Coloradans to first apply for Medical Assistance in order to qualify to use the state's health insurance exchange. It is worth noting that the model includes TANF appropriation, which is recorded in the CDHS share of the costs. If TANF is excluded from the calculation, the portion of cost model results attributed to CDHS would be even smaller.

If county spending is adjusted to match the cost model results, additional savings may be available for the counties, the State, the federal government due to differences in federal, state, and county contributions for SNAP and MA. The table below shows that if SNAP spending is decreased and MA spending is increased per the cost model results, the nine counties would save a total of $1,321,417.96 and the State would save $1,760,345.21. The FNS contribution would decrease by $4,732,743.79 and CMS contribution would increase by $2,751,634.35, for a total $1,981,109.44 decrease in federal contribution. The overall cost savings for federal, state, and county departments would be equal to $5,062,872.61. It should be noted, however, that these savings are based on the assumption that HCPF enhanced share will remain the same, however

concerns exist that costs would fall into the non-enhanced category and the federal match would be closer to 50%, resulting in smaller overall savings.

	SNAP				MA				Additional / (Savings)
	Share	Cost Model Results	CFMS Reported Costs	Delta	Share*	Cost Model Results	CFMS Reported Costs	Delta	
Federal	50%	$ 11,848,873.48	$ 16,581,617.27	$(4,732,743.79)	62.5%	$ 17,345,993.47	$ 14,594,359.12	$2,751,634.35	$(1,981,109.44)
State	30%	$ 7,109,324.09	$ 9,948,970.36	$(2,839,646.27)	24.5%	$ 6,803,792.48	$ 5,724,491.42	$1,079,301.06	$(1,760,345.21)
County	20%	$ 4,739,549.39	$ 6,632,646.91	$(1,893,097.51)	13%	$ 3,603,803.60	$ 3,032,124.05	$ 571,679.55	$(1,321,417.96)
Total	**100%**	**$ 23,697,746.97**	**$ 33,163,234.54**	**$(9,465,487.57)**	**100%**	**$ 27,753,589.55**	**$ 23,350,974.59**	**$4,402,614.96**	**$(5,062,872.61)**
*MA share is an average of enhanced and non-enhanced.									

Figure 99 - County and State Savings Based on Changes in Contribution for SNAP and MA

Furthermore, to address the gap between allocated costs and cost model results, CDHS is projected to add $19,107,325 to the 64 counties in SFY18, of which $9,044,674 should be attributed to the nine counties. This would provide the needed funding to the counties and would enable them to come closer to meeting their workload requirements. In addition, opportunities exist for the counties to further reduce their spending by implementing the business process and efficiency recommendations proposed in this study.

As the findings indicate, the study concentrated on a detailed analysis of the nine county cost. In order to assess costs for the remaining 55 counties, Deloitte extrapolated weighted average monthly cost per case for each of the seven programs for the nine counties and multiplied it by respective program caseload for each of the remaining 55 counties. Appendix T provides a granular view of cost model results by program for all 64 counties. It should be noted that while the there is a high level of confidence in cost model results for the nine counties, cost variance should be expected in cost model results for the 55 counties based on the extrapolation of the nine county data. To achieve a more accurate estimation of the 64 county costs, the State should consider conducting a detailed cost analysis of the remaining 55 counties similar to the one produced for the nine counties in this study. The additional county activity and cost data for the 55 counties would provide the necessary details to more accurately determine the appropriate level of funding for all 64 counties.

Colorado should consider a more dynamic funding model that takes into account CDHS and HCPF workload for each year, appropriates state-level funds accordingly, and allocates funds to counties based on their specific needs. However, during interviews, financial management staff indicated that changing allocations can be disruptive for planning. Colorado should closely examine the relationship between CDHS and HCPF workload, and funding streams, before making a decision to change the amount or balance of allocations.

7.4. Analysis in Conjunction to Current Allocation Methodologies

This section analyzes other aspects of the current allocation methodology—the enhanced/non-enhanced split, the state and county share split, allocations to counties, year-end redistribution, performance incentives, and cost of living.

7.5.1 Medical Assistance Enhanced and Non-Enhanced Split

Currently enhanced MA funding makes up approximately 64% of every county's HCPF admin allocation. Activities eligible for enhanced match are generally direct eligibility determination activities. Statewide, the enhanced allocation was overspent by 10 percent, while the non-enhanced allocation was overspent by only two percent. Counties ended up spending $35,127,342.90, or 66% of HCPF funds, on enhanced activities, and $18,438,015.19 in non-enhanced HCPF funds. Colorado should seek out more enhanced funding to match how counties are allocating their time. This would also provide an incentive for counties to automate or streamline non-enhanced activities so that more resources can be allocated to enhanced activities.

Counties do not spend their resources uniformly on activities eligible for enhanced match, so giving all counties the same percentage split between enhanced and non-enhanced may not adequately fund their activities. In general, counties spend most of their time on enhanced activities, but that can vary from a high of 81% in Grand to a low of 40% in Custer. The state may want to consider varying the amount of enhanced match funding based on the counties' dedication of resources to eligible activities, while still encouraging counties to focus on enhanced activities. If this incentive is effective, Colorado would save money because the State share is reduced in the enhanced match.

County	Enhanced HCPF Spend	Non-Enhanced HCPF Spend	Enhanced Spending Split	Non-Enhanced Spending Split
Adams	$3,058,740.96	$1,762,136.67	63%	37%
Alamosa	$293,228.28	$138,471.47	68%	32%
Arapahoe	$2,788,151.30	$1,474,371.19	65%	35%
Archuleta	$43,028.35	$41,554.36	51%	49%
Baca	$66,246.14	$24,861.48	73%	27%
Bent	$90,434.87	$41,128.57	69%	31%
Boulder	$1,476,985.46	$2,044,254.52	42%	58%
Broomfield	$259,924.80	$203,455.16	56%	44%
Chaffee	$170,566.01	$83,412.52	67%	33%
Cheyenne	$8,482.88	$28,206.00	23%	77%
Clear Creek	$45,640.14	$53,650.88	46%	54%
Conejos	$47,492.13	$48,078.79	50%	50%
Costilla	$77,459.41	$64,805.65	54%	46%
Crowley	$63,974.38	$31,943.20	67%	33%
Custer	$12,203.32	$18,603.15	40%	60%
Delta	$162,939.10	$81,404.55	67%	33%
Denver	$7,755,948.31	$3,693,520.86	68%	32%
Dolores	$28,480.17	$14,353.12	66%	34%
Douglas	$641,798.03	$225,431.16	74%	26%
Eagle	$458,356.42	$120,790.92	79%	21%

County	Enhanced HCPF Spend	Non-Enhanced HCPF Spend	Enhanced Spending Split	Non-Enhanced Spending Split
El Paso	$3,207,494.61	$1,808,418.99	64%	36%
Elbert	$55,452.49	$44,867.96	55%	45%
Fremont	$396,936.05	$154,785.43	72%	28%
Garfield	$695,597.09	$250,541.66	74%	26%
Gilpin	$55,425.66	$29,372.71	65%	35%
Grand	$154,464.14	$37,287.21	81%	19%
Gunnison	$114,097.87	$70,198.76	62%	38%
Hinsdale*	-	-	-	-
Huerfano	$105,628.21	$52,017.72	67%	33%
Jackson	$18,043.82	$8,211.13	69%	31%
Jefferson	$2,619,797.78	$841,334.18	76%	24%
Kiowa	$19,017.16	$27,924.15	41%	59%
Kit Carson	$69,138.90	$31,777.50	69%	31%
La Plata	$270,318.48	$110,894.56	71%	29%
Lake	$76,851.08	$26,851.11	74%	26%
Larimer	$1,615,216.72	$880,509.42	65%	35%
Las Animas	$238,571.92	$47,830.96	83%	17%
Lincoln	$93,028.40	$40,424.05	70%	30%
Logan	$315,850.77	$119,531.37	73%	27%
Mesa	$950,040.96	$487,070.81	66%	34%
Mineral**	-	-	-	-
Moffat	$148,403.08	$64,399.13	70%	30%
Montezuma	$245,753.47	$84,238.73	74%	26%
Montrose	$433,084.42	$140,580.23	75%	25%
Morgan	$283,151.11	$108,144.59	72%	28%
Otero	$275,030.70	$136,690.25	67%	33%
Ouray	$43,787.72	$20,237.30	68%	32%
Park	$59,939.35	$50,956.56	54%	46%
Phillips	$46,944.66	$23,866.75	66%	34%
Pitkin	$99,927.55	$28,761.46	78%	22%
Prowers	$221,692.63	$90,046.50	71%	29%
Pueblo	$1,842,781.63	$646,206.70	74%	26%
Rio Blanco	$60,048.02	$46,318.91	56%	44%
Rio Grande	$178,196.66	$80,980.21	69%	31%
Routt	$169,494.81	$66,310.22	72%	28%
Saguache	$94,657.53	$37,999.61	71%	29%
San Juan	$12,530.91	$3,213.81	80%	20%
San Miguel	$32,954.15	$30,627.50	52%	48%
Sedgwick	$39,351.42	$23,241.38	63%	37%
Summit	$194,356.96	$56,004.43	78%	22%
Teller	$200,379.77	$108,429.32	65%	35%
Washington	$48,406.84	$29,273.08	62%	38%
Weld	$1,719,499.71	$1,253,928.15	58%	42%
Yuma	$55,917.23	$43,276.47	56%	44%
Total	**$35,127,342.90**	**$18,438,015.19**	**66%**	**34%**

*Hinsdale allocations and expenditures are included with Gunnison County totals

**Mineral allocations and expenditures are included with Rio Grande County totals

Figure 100 - State Fiscal Year 2016 Enhanced and Non-Enhanced Spending

7.5.2 State and County Share Split

All state-supervised, county-administered human services programs allocate funding with a specific federal share determined by federal statute. These shares are reflected in the table in the introduction to this section. However, states have latitude in determining the remaining state and county share. In Colorado, counties are required to contribute 20% of their expenditures. While there is concern that counties that typically underspend and don't fund their full share of allocation may leave some state and federals funds on the table, there is also an understanding that these counties are able to meet their workload and service provision requirements without matching the entire share of their administration allocation.

Although these counties underspend, others overspend and Colorado could consider streamlining or centralizing some services to make it easier for counties to meet their workload obligations. For example, offering a centralized call center, workload management system, document scanning, or more centralized program integrity and fraud tools would enable counties to divert resources to mission-focused eligibility work.

The following table shows a breakdown of federal, state, and county funding responsibilities for SNAP in other states. Based on this data, county share is significantly greater in other states than it is in Colorado. Colorado could consider requesting counties to share more than 20% of their current share.

State	Federal Funding	State Funding	County Funding	Total
Colorado	50%	30%	20%	100%
North Carolina	50%	0%	50%	100%
New Jersey	50%	0%	50%	100%
California	50%	15%	35%	100%
Minnesota	50%	0%	50%	100%

Figure 101 - Multiple States' Breakdown of Federal, State, and County Funding for SNAP

7.5.3 Allocation to Counties

The current allocation method multiplies food assistance, medical assistance, and adult financial assistance applications from the previous state fiscal year by minutes per activity from a 2007 Workload Study. Application numbers are requested by the state from CBMS. Pulling application numbers each year from CBMS enables Colorado to update the allocations each year based on anticipated workload, which supports an allocation that is more likely to meet shifting demand. However, two other activity drivers – caseload and FTEs – were proposed in the original 2007 study for activities that could not be driven by a defined output such as intake. The current allocation method may be more accurate if it also takes into account caseload by program and FTEs by program.

Furthermore, the current allocation uses some, but not all, activities in the 2007 model to allocate costs, including completed application intakes, failed interactive interviews, RRRs completed, denials/discontinuations issued, intercounty transfers, and EBT card issuance. The 2007 study identified several "key cost levers" that drive the other costs

in the model up or down, which do not match to the allocation method, including intake, case related activities, client communications and information, administrative activities (non-case related), eligibility recertification (RRRs) and periodic reporting, management activities, claims, and other (which included EBT issuance and intercounty transfers). Using a selected set of activities that do not correspond to all of the cost drivers captured in the model may understate or overstate the resources needed to perform admin allocation activities.

The current workload study realizes a number of refinements that should capture a more accurate cost per activity and service than the 2007 workload study.

Original 2007 Study	Current 2017 Study	Improvement
Allocated overhead by FTE by calculating flat "cost per FTE"	Allocates overhead by FTE driven to activity	FTEs in different positions supporting different programs may be paid at different rates or use more overtime, which should be captured to derive a more accurate cost per program
Conducted before rollout of PEAK	Divides between PEAK and non-PEAK applications, but also incorporates amount of time spent on PEAK re-work	Only reflects FTEs processing non-PEAK applications, since many PEAK applications result in approvals without staff time required
Based some activities on FTEs	Also incorporates contractor pay and independently assigns their resources to activities	Directly captures funds spent on contractors and the unique activities they perform
Includes only Food Assistance, Medical Assistance, Adult Financial, and Adult Protective Services	Includes MA, SNAP, AF, LTC, OAP, and TANF	Provides a more comprehensive view of services supported through the admin allocation

Figure 102 - Table Comparing Original 2007 Study to Current Workload Study

Allocating costs to counties by cost per case would fully capture the resources that may be required to meet demand for the state fiscal year. The cost per case is discussed in section 4.5. Colorado can consider several options for using this information to allocate by county in a way that is fair, but that also encourages counties to streamline and automate processes to save resources where possible. If Colorado uses each individual county's cost per case, each county's allocation would be tailored to their needs, but would not reward counties with more efficient processes. Colorado could consider using an average cost per case for all counties—this scenario is shown below based on the results of this survey.

County	Original CDHS Allocation	Original HCPF Allocation	New CDHS Allocation	New HCPF Allocation
ALAMOSA	$460,502	$445,180	$417,688	$463,630
ARAPAHOE	$5,763,715	$5,218,059	$3,917,376	$5,944,240
DENVER	$9,549,397	$8,519,881	$14,879,241	$13,620,564
DOUGLAS	$817,755	$775,798	$559,078	$1,066,655
EAGLE	$293,929	$303,685	$202,611	$698,231
EL PASO	$6,703,435	$5,972,845	$4,803,073	$6,843,473
HUERFANO	$174,685	$164,873	$125,379	$148,544
MESA	$1,935,505	$1,739,767	$1,483,064	$1,879,930
SEDGWICK	$54,941	$49,549	$43,199	$63,578
Total	**$25,753,864**	**$23,189,637**	**$26,430,710**	**$30,728,845**

Figure 103 – Comparison of SFY2016 Allocation and Model Results Allocation Based on Average Cost Per Case

If Colorado elects to use average cost per case from this survey, the state may want to consider expanding the cost model to all counties, and capturing additional data to validate the difference between the survey results and CFMS. The state may also want to consider updating the cost per case every few years so that the allocation is adjusted based on changing circumstances. Colorado could also consider varying the average cost per case according to the cost of living, as described below in section 7.5.6.

Alternatively, costs allocated by RMS offer a statewide cost per case that is continuously updated each year, and would not require Colorado to conduct new surveys. However, this study has found that there may be some issues with how costs are reported in CFMS. Colorado should consider identifying alternative cost allocation methodologies and determining which most accurately represents direct costs.

7.5.4 Year-End Redistribution

Because the admin allocation is calculated based on prior year workload, and is set before the state fiscal year begins, shifts in workload during the year may mean that certain counties use all their funding. The state mitigates this fact with the year-end closeout process, where funds from underspent counties are shifted to overspent counties, and remaining funds are eligible for federal pass-through dollars.

To measure the extent to which shifting workload during the year necessitates a shift in funds, the original HCPF allocation for state fiscal year 2016 was compared to MA workload in calendar year 2016. MA workload was used as a proxy for all medical program workload, since MA applications make up the vast majority of medical assistance applications. This comparison found that small and medium counties tend to receive a higher percentage of the admin allocation than they needed given their workload, and large counties received a lower allocation than what they needed.

7.5.5 Performance Incentives

Some interviewed counties reported that the recent introduction of funding for performance-based incentives for HCPF has motivated them to pursue process

improvements. In addition, the funds received can help the county mitigate overspending. The County Incentive Program was developed following a budget action approved by the Colorado General Assembly in 2014, and funded through the budget request titled Eligibility Determination Enhanced Match. Approximately $4.3 million was made available for state fiscal year 2017. All 64 counties have contracted with HCPF between FY14-16 to participate in the incentive program, though it is not mandatory. Each of the counties has earned at least one incentive over the past three years.

The incentives for state fiscal year 2017 include timeliness for new applications and RRRs, reduced backlogs, improved collaboration with local partners, report submission compliance with the Medicaid Eligibility Quality Improvement Plan (MEQIP), and training for Medical Assistance eligibility staff. The incentives were determined in collaboration with the counties.

Because counties make many decisions based on funds availability, providing financial incentives can lead to improved performance if the incentive is structured to alleviate some financial burden on the counties. If counties feel that their effort to improve training or accuracy will cost more than the incentive is worth, they may not elect to earn that particular incentive. To incentivize under-spending, Colorado should provide more incentives that encourage counties to automate and streamline processes.

7.5.6 Cost of Living

During interviews with Eagle County, Eagle indicated that the high cost of health care is a large factor in the cost of benefits for employees, which is often not taken into account when stakeholders review Eagle's costs. In addition, the CCI suggested that cost of living be factored into the admin allocation.

Counties that require an hourly wage above the state average of $17.05 (as discussed in section 4.6) do overspend at a higher rate than counties with an hourly living wage below $17.05. In state fiscal year 2016, 69% of high wage counties overspent on CDHS, while 50% of low wage counties overspent on CDHS. Sixty-three percent of high wage counties overspent on HCPF and 46% of low wage counties overspent on HCPF. A similar trend is seen in state fiscal years 2014 and 2015, though overspending in general has become more common over time.

Above Average Cost of Living Counties	Number of Counties	Number Overspent CDHS	Percent Overspent CDHS	Number Overspent HCPF	Percent Overspent HCPF
Small	8	5	63%	4	50%
Medium	3	2	67%	3	100%
Large	5	4	80%	3	60%
All	**16**	**11**	**69%**	**10**	**63%**

Figure 104 - Overspending for Above Average Cost of Living Counties in State Fiscal Year 2016

Below Average Cost of Living Counties	Number of Counties	Number Overspent CDHS	Percent Overspent CDHS	Number Overspent HCPF	Percent Overspent HCPF
Small	22	14	64%	9	41%
Medium	19	5	26%	9	47%
Large	5	4	80%	3	60%
All	**46**	**23**	**50%**	**21**	**46%**

Figure 105 - Overspending for Below Average Cost of Living Counties in State Fiscal Year 2016

Please Note: The total number of counties between figures 104 and 105 equals 62, as Hinsdale CFMS reported costs were added to Gunnison County total CFMS reported costs, and Mineral County CFMS reported costs were added to Rio Grande County total CFMS reported costs.

Using a multiplier for cost of living could alleviate overspending by high wage counties. The table below represents what the county's state fiscal year 2016 allocation would have been if this multiplier had been used, assuming that all other allocation principles were the same as the current method.

County	Original Total Allocation[1]	Multiplier	Total Allocation with Multiplier	Total Spending	Over / Underspent
Adams	$9,823,008	102.70%	$10,088,027	$11,392,282	Over
Alamosa	$959,880	91.73%	$880,500	$930,898	Over
Arapahoe	$11,341,230	102.70%	$11,647,211	$10,085,543	Under
Archuleta	$267,889	94.84%	$254,062	$240,294	Under
Baca	$144,290	91.73%	$132,358	$185,364	Over
Bent	$238,058	92.14%	$219,349	$283,495	Over
Boulder	$4,406,105	105.63%	$4,654,191	$7,404,947	Over
Broomfield	$604,158	102.70%	$620,458	$1,024,789	Over
Chaffee	$452,692	95.31%	$431,452	$518,730	Over
Cheyenne	$106,865	91.73%	$98,027	$82,321	Under
Clear Creek	$222,076	102.70%	$228,067	$147,558	Under
Conejos	$370,648	91.73%	$339,996	$263,424	Under
Costilla	$260,928	93.49%	$243,941	$342,497	Over
Crowley	$162,764	91.73%	$149,303	$204,786	Over
Custer	$108,278	91.79%	$99,387	$80,333	Under
Delta	$976,899	94.96%	$927,624	$656,962	Under
Denver	$18,888,733	102.70%	$19,398,341	$29,828,375	Over
Dolores	$109,575	91.73%	$100,513	$114,338	Over
Douglas	$1,710,583	102.70%	$1,756,734	$1,472,687	Under
Eagle	$674,962	102.35%	$690,796	$1,013,447	Over
El Paso	$12,956,684	96.25%	$12,470,334	$13,182,445	Over
Elbert	$236,774	102.70%	$243,162	$190,188	Under
Fremont	$1,427,311	93.02%	$1,327,692	$1,304,142	Under

County	Original Total Allocation[1]	Multiplier	Total Allocation with Multiplier	Total Spending	Over / Underspent
Garfield	$1,431,063	99.77%	$1,427,706	$2,097,737	Over
Gilpin	$136,583	102.70%	$140,268	$179,843	Over
Grand	$224,160	97.30%	$218,112	$327,241	Over
Gunnison	$461,108	95.31%	$439,472	$377,286	Under
Hinsdale*					
Huerfano	$361,179	92.08%	$332,581	$335,847	Over
Jackson	$106,770	94.60%	$101,009	$45,599	Under
Jefferson	$7,478,085	102.70%	$7,679,840	$8,897,606	Over
Kiowa	$107,832	92.61%	$99,863	$83,872	Under
Kit Carson	$212,893	91.73%	$195,287	$246,465	Over
La Plata	$1,038,831	98.24%	$1,020,552	$1,043,860	Over
Lake	$245,047	96.66%	$236,855	$296,721	Over
Larimer	$5,354,211	97.83%	$5,238,019	$6,299,783	Over
Las Animas	$616,731	93.72%	$578,027	$551,811	Under
Lincoln	$181,989	92.14%	$167,686	$253,034	Over
Logan	$585,884	92.67%	$542,931	$749,815	Over
Mesa	$3,783,641	94.43%	$3,572,822	$3,790,912	Over
Mineral**					
Moffat	$413,481	93.78%	$387,775	$459,627	Over
Montezuma	$820,409	91.73%	$752,563	$797,233	Over
Montrose	$1,393,649	94.90%	$1,322,536	$1,141,814	Under
Morgan	$866,491	92.49%	$801,441	$744,705	Under
Otero	$871,167	93.14%	$811,386	$1,142,626	Over
Ouray	$109,007	99.35%	$108,304	$142,468	Over
Park	$329,462	102.70%	$338,351	$293,255	Under
Phillips	$115,143	92.02%	$105,959	$163,743	Over
Pitkin	$162,415	111.09%	$180,419	$336,389	Over
Prowers	$617,202	91.73%	$566,161	$563,021	Under
Pueblo	$6,146,772	94.13%	$5,786,257	$6,023,238	Over
Rio Blanco	$154,271	92.96%	$143,413	$246,706	Over
Rio Grande	$710,190	91.73%	$651,459	$519,593	Under
Routt	$348,944	100.53%	$350,786	$559,146	Over
Saguache	$317,043	91.91%	$291,382	$249,274	Under
San Juan	$107,060	99.82%	$106,872	$39,818	Under
San Miguel	$135,128	105.63%	$142,737	$138,850	Under
Sedgwick	$108,982	91.73%	$99,969	$123,294	Over
Summit	$456,657	104.46%	$477,013	$510,850	Over
Teller	$593,973	96.77%	$574,813	$581,011	Over
Washington	$114,164	91.73%	$104,723	$153,754	Over
Weld	$5,272,122	94.72%	$4,993,829	$7,654,326	Over

County	Original Total Allocation[1]	Multiplier	Total Allocation with Multiplier	Total Spending	Over / Underspent
Yuma	$255,377	91.73%	$234,258	$274,437	Over
Total	**$109,195,505**		**$108,324,959**	**$129,386,457**	**Over**

[1] Allocation includes SFY16 Allocation OAP-Cash SFY 2016 Reported Costs (through CFMS)

*Hinsdale allocations and expenditures are included with Gunnison County totals

**Mineral allocations and expenditures are included with Rio Grande County totals

Figure 106 - Revised SFY16 Allocations with Multiplier in Comparison to CY16 CFMS Reported Costs

Then the amount spent was compared to the new allocation. With the new allocation, the same amount or more counties would have overspent across both high wage and low wage counties. This is because while high wage counties are receiving more, they are not receiving enough additional funds to cover their costs using this multiplier at the same time that low wage counties are losing large portions of their allocations. Low wage counties tend to be small, which means their allocations are lower and have less of an impact if they are transferred to large counties.

Above Average Cost of Living Counties	Number of Counties	Number Overspent CDHS	Percent Overspent CDHS	Number Overspent HCPF	Percent Overspent HCPF
Small	8	4	50%	4	50%
Medium	3	2	67%	3	100%
Large	5	4	80%	3	60%
All	**16**	**10**	**63%**	**10**	**63%**

*A weighted average of overspent counties divided by total counties

Figure 107 – Comparison of Overspending for High Wage Counties with Multiplier using SFY16 Allocation and CY16 CFMS Reported Costs

Below Average Cost of Living Counties	Number of Counties	Number Overspent CDHS	Percent Overspent CDHS	Number Overspent HCPF	Percent Overspent HCPF
Small	22	15	68%	12	55%
Medium	19	8	42%	12	63%
Large	5	5	100%	4	80%
All	**46**	**28**	**61%**	**28**	**61%**

*A weighted average of overspent counties divided by total counties

Figure 108 – Comparison of Overspending for Low Wage Counties with Multiplier using SFY16 Allocation and CY16 CFMS Reported Costs

Please Note: The total number of counties between figures 107 and 108 equals 62, as Hinsdale CFMS reported costs were added to Gunnison County total CFMS reported costs, and Mineral County CFMS reported costs were added to Rio Grande County total CFMS reported costs.

The State of Colorado should consider using a multiplier to take into account cost of living. However, with a high percentage of all counties overspending, using a multiplier alone will not lead to fewer counties overspending.

7.5. Base Allocation Level

The “open the door” cost originally calculated in the 2007 study was $87,774.66. In 2015 the cost was $105,329, which is the same cost inflated over 10 years. Ten small counties used the “open the door” cost in state fiscal year 2016.

7.6.1 Minimum Allocation

The State also uses a minimum allocation each year, which does not allow the county’s allocation to drop below 5% of the previous year. Other states refer to this type of minimum allocation as a “hold harmless” base allocation. This minimum may be important to allow counties time to lower expenses that may not be flexible as workload drops. All sizes of counties receive this allocation at approximately the same rate. In state fiscal year 2016, 22 additional counties’ allocations were raised above what they otherwise would have been because they would have dropped below their minimum allocation based on the previous year.

County Size	All Counties	Number Receiving Minimum Allocation	Percent Receiving Minimum Allocation	Number Overspent CDHS	Percent Overspent CDHS	Number Overspent HCPF	Percent Overspent HCPF
Small	32	11	34%	11	100%	8	73%
Medium	22	7	32%	3	14%	3	43%
Large	10	4	40%	4	40%	2	50%
All	**64**	**22**	**34%**	**18**	**28%**	**13**	**59%**

Figure 109- Table of Minimum Allocation by County Size

Of the 22 counties receiving the minimum allocation in state fiscal year 2016, only 28% overspent on CDHS (the statewide average is 73 percent). However, all of the small counties overspent on CDHS. The minimum allocation appears to help many counties meet their CDHS budget.

However, the opposite is true for HCPF—59% of counties receiving the minimum allocation overspent, while the statewide average is 44%. Overall, if all counties had received what would have been their original allocation calculated purely based on workload, 45 would have overspent. With the minimum allocation, 43 would have overspent—a difference of only two. Colorado may want to consider using the “hold harmless” allocation for CDHS only, and give counties their original allocation for HCPF.

The difference in impact to counties’ ability to meet their CDHS and HCPF budget may be because food stamp applications are falling while Medical Assistance applications are holding steady. Counties benefit from the minimum allocation when their workload is falling, which is currently more common for food stamp applications. The minimum allocation helped them to meet their CDHS obligations. The success of the minimum

allocation for CDHS also indicates that it is difficult for counties to quickly divest of resources when their workload falls.

However, because three types of workload are combined when calculating the allocation to counties, falling food stamp applications also pull down counties' HCPF allocations. For most counties receiving the minimum HCPF allocation, the minimum was not enough to meet their HCPF obligations. As also discussed in Section 6.5 above, Colorado should consider independently calculating the allocation to counties for CDHS and HCPF.

8.Recommendations

The analysis of county activities, time, cost, business processes, and performance measures coupled with observations made during county visits has informed the following recommendations. These recommendations have a number of business benefits categorized into the following three groups: improved performance and processes, enhanced resource efficiency, and reduction in county admin costs. As noted in the report summary, the study does not provide an analysis around the cost of implementing BPR and the suggested recommendations, due to differences in county processes and challenges, as well as time and resource constraints of this study. In addition, while the State and the counties have made investments in BPR in the past, this study did not have sufficient information to analyze the return on investment.

Business Benefit	Definition
Improve Performance and Processes	Decrease error rates, sustain or increase timeliness, and grow operational efficiency.
Improve Resource Efficiency	Utilize and allocate time, staff, and physical resources more efficiently and effectively.
Reduce County Admin Cost	Allocate county admin funds more effectively and minimize costs due to operational efficiencies.

8.1. Recommendation 1: Implement Specific BPR Practices in More Counties

#	Title	Summary	Business Benefits		
			Improve Performance and Processes	Improve Resource Efficiency	Reduce County Admin Cost
1a	Implement Workload Management System	By implementing a Workload Management System, counties will be able to reduce manual review and assignments of caseload to eligibility workers, thereby streamlining the business processes and providing faster service to the customers	✓	✓	✓
1b	Utilize Electronic Records	Greater use of electronic records can help counties track case processing activities more accurately and inform county processes and resource allocation	✓	✓	✓

1c	Reduce Manual, Paper-Based Processes	Reduction of paper-based processes can provide faster, easier and more confidential sharing of client data within the organization Elimination of duplicative effort by multiple workers and reduction of cost due to minimized physical document printing and storage	✓	✓	✓
1d	Redefine Intercounty Transfer Processes	Changing how intercounty case transfers are processed will decrease case processing times	✓	✓	✓

Specific BPR practices should be implemented in more counties to help increase process efficiency. By implementing BPR practices, counties will be able to improve their performance and processes, which may lead to greater resource efficiency, and as a result, reduction of county costs association with the administration of public benefit assistance programs. As previously mentioned, this study did not have sufficient information and resources to analyze the cost of implementing BPR and the associated return on investment. Nevertheless, the study believes that while there may be an upfront cost to implementing some of the BPR, such as creation of a workload management system, the long-term benefits of implementing these improvements can result in greater efficiencies, cost reduction, and a larger return on investment. The counties should adopt the following practices:

- **Use a workload management system to assist with electronic creation of tasks and automatic allocation of work based on staff availability and case urgency.** This can help supervisors track all outstanding activities, plan staff assignments, and keep track of individual staff case processing times and performance. This system would reduce the time staff would otherwise spend on sifting through hundreds of paper documents and counting off specific cases that should be reviewed by each person. A workload management system should also allow for more urgent tasks to be flagged in the system to be processed immediately. This feature would help counties to stay on track with timeliness goals.

- **Track daily case processing records electronically and use the data to inform and improve county processes and resource allocation.** For example, electronic data records can show ebbs and flows in walk-ins or calls throughout the day and can help counties properly assess work completion rates and staffing needs. The system can also help counties analyze client wait times and the number of client interactions necessary to get a decision. In addition, counties can also use the system to assess correlation of completion rates to

repeat visits and correlation of phone calls and office visits to days out on non-lobby work.

- **Rely on electronic workload management systems to help reduce** staff time spent on manually assigning cases and decrease case processing time by allowing eligibility workers to immediately pull the next case from an electronic queue.

- **Reduce manual, paper-based processing in favor of process automation.** By adopting electronic record keeping and sharing, counties can achieve the following benefits: 1) easy access to client data and sharing of information between organizational units; 2) reduced duplication of files; 3) greater client confidentiality; 4) accurate record of all client documentation located centrally; 5) safe recordkeeping compared to physical documentation; 6) opportunities to copy or delete in bulk after case expiry; and 7) cost reduction from elimination of physical file rooms.

- **Redefine processes for handling intercounty transfers** by allowing cases to be transferred automatically to a new eligibility worker once the client was able to prove a change of address. This improvement can significantly decrease case processing times because counties would be able to share information faster and hand off cases more efficiently without waiting for a specific person to approve the transfer before an eligibility worker in the new county of residence can begin working on the client's case. Alternatively, more people in each county need to be granted access to conduct case transfers, so that the burden on one person could be minimized and transfers could happen faster. In addition, the list of people in every county who have the security clearance to approve intercounty transfers should be regularly updated and more readily available, so that each case worker knows and can reach out directly to the person responsible for the transfer. This process will not only improve county performance and enhance its processes, but will also increase resource efficiency by reducing the amount of time that it normally requires to transfer a case from one county to another. The less time staff spend waiting for the transfer to take place, the more time can be spent on actual case processing, thus allowing counties to further cut down on unnecessary costs.

8.2. Recommendation 2: Improve Functionality of Application and Eligibility Systems

#	Title	Summary	Business Benefits		
			Improve Performance and Processes	Improve Resource Efficiency	Reduce County Admin Cost
2a	Update CBMS Database	Modernizing the backend CBMS database and updating connectivity between servers and systems, will increase processing speed and improve system functionality	✓	✓	
2b	Add New Features to CBMS	Including case commentary will avoid external program workarounds (Microsoft Office) and allowing for Case Reviews will increase efficiency	✓	✓	
2c	Increase Interoperability Between Systems	Increasing interoperability will allow for more streamlined and accurate process for sharing information between systems	✓	✓	
2d	Improve PEAK Functionality	Expanding PEAK's capabilities to recognize duplicate customer records and catch incorrect client data will not only decrease the processing time but also decrease the rework in fixing the cases	✓	✓	✓

Opportunities exist for improvement of PEAK and CBMS functionality that can help increase case processing efficiency and reduce error rates. Specifically, the State can make the following changes:

- **Upgrade CBMS database and update connectivity between state and county servers and systems to help increase processing speed and improve system functionality.** This improvement would also eliminate the time spent by staff submitting help desk tickets and would enable them to spend more time on direct case processing. The fewer help desk tickets there are, the less time back office IT support would need to spend fixing them, thus further improving resource efficiency.

- **Add features in CBMS to provide case commentary to avoid workarounds in Word and Excel and add a functionality to perform case reviews within the system with links to each case.** By enabling this feature, staff will spend less time switching from one program to another and will be able to do all tasks in

CBMS, thereby decreasing the overall case processing time. Similarly, by allowing supervisors to conduct case reviews right in CBMS, counties will be able to flag directly in the system cases that require a review or have been reviewed. This can also allow an eligibility worker to see mistakes right in the CBMS instead of switching to a different program. This system can help supervisors be more efficient and effective with providing quality assurance.

- **Develop enhanced system interoperability to allow for a more streamlined and accurate process for sharing of information between CBMS, PEAK, EDMS, CHATS, and TRAILS.** For example, by enabling better interoperability between CBMS and PEAK, cases submitted in PEAK would populate more accurately into CBMS, thereby reducing the amount of time staff would need to correct client data in the system. The less time staff spend on correcting information, the more time they dedicate to new case processing. It should be noted that CDHS is currently in the process of enhancing system interoperability.

- **Build PEAK functionality to recognize duplicate customer records, perform merges, and catch incorrect information before changes are submitted.** Enable a smarter feature to guide clients on how to submit accurate PEAK information. Expanding PEAK's capabilities to recognize duplicate customer records and catch incorrect client data will not only decrease the processing time but also decrease the rework in fixing the cases. In addition, since staff are faster at processing PEAK applications than non-PEAK applications when all fields are entered correctly, the greater number of cases coming in through PEAK will mean there is a greater opportunity for counties to reduce their costs.

By implementing the above recommendations to improve the functionality of application and eligibility systems, the counties will be able to improve county performance and processes and, as a result, enhance its resource efficiency.

8.3. Recommendation 3: Improve Intercounty and State-to-County Communication

#	Title	Summary	Business Benefits		
			Improve Performance and Processes	Improve Resource Efficiency	Reduce County Admin Cost
3a	Improve Intercounty Communication	Enhanced intercounty communication will allow for better knowledge sharing and collaboration	✓	✓	
3b	Consolidate Program and	By creating one location for all information and state communication, counties will rapidly increase staff	✓	✓	

	State Information	knowledge and respond faster to client needs			
3c	Develop Consistent State-to-County Communication Plan	By implementing consistent, and where possible, coordinated communication from CDHS and HCPF, counties will be more aware of what is expected from them and better prepared to respond to State requests	✓	✓	

Counties and the State should develop a better intercounty communication process and improve state-to-county communication channels. Specifically, the communication improvements outlined below can help increase information sharing, build accountability, and grow knowledge. They can also lead to an overall improvement of county performance and processes as well as greater resource efficiencies that can translate into real cost savings for the counties.

- **Improve intercounty communication to encourage sharing of leading practices, knowledge building, and collaboration on special projects.** This can be particularly effective in Colorado's state-supervised, county-administered system, where counties follow different processes and have the opportunity to learn from each other's successes. The adoption of peer counties' workload management systems is one example of how counties can share leading practices and tools. Enhanced intercounty collaboration can also provide opportunities for resource sharing, which would be particularly helpful for smaller counties that may not have the ability to develop their own systems. In addition, neighboring counties could also collaborate on joint outreach efforts to promote CDHS and HCPF programs in surrounding areas and increase enrollment of eligible Coloradans. These improvements can not only increase program quality and performance, but also contribute to greater resource efficiency.

- **Eliminate multiple locations for program information and state communication**, such as the website, portal, and the library, which results in disaggregated information that is challenging for staff to navigate. Consolidate all program and State information in one place to enable easy access and "search and find." This improvement can help increase staff knowledge by allowing them to find policy or program information much faster. It can also help staff respond to client's needs more efficiently and effectively and as a result further contribute to better county timeliness and error rate metrics.

- **Develop better and more consistent State-to-county communication** that provides information about the latest policy changes and communicates with counties on a regular basis. While HCPF and CDHS follow separate regulations, opportunities exist for collaboration and coordination on joined issues, such as

returned mail. In addition, the State should adopt a centralized calendar that will help counties keep track of required submissions to the State, whether reporting or participation in studies, and will notify them about the upcoming requirements with sufficient time to respond. By implementing this change, counties will be more aware of and more informed about State communication and can better manage their time knowing what is expected from them and when. In addition, this practice can help minimize interruptions to daily case processing and help the counties provide timely reporting and responses to State requests.

8.4. Recommendation 4: Improve State and County-Provided Training

#	Title	Summary	Business Benefits		
			Improve Performance and Processes	Improve Resource Efficiency	Reduce County Admin Cost
4a	Provide Comprehensive New Employee Foundational Training	By improving the foundational training, new employees will be better prepared to process cases independently at a faster learning rate	✓	✓	✓
4b	Offer More Ongoing Training Courses	By offering more ongoing training opportunities, the State will help staff identify and improve their knowledge gaps of policy and the system, and help improve their overall expertise	✓	✓	
4c	Increase Training Opportunities for Remote Counties	Giving remote counties the ability to complete trainings virtually will eliminate pressure from staff to travel long distances and will reduce the time not processing cases	✓	✓	✓
4d	Define the Purpose of State and County-provided Trainings	Clarity around State and County roles in delivering trainings will help avoid confusion around who is responsible for policy and process related content and will improve the overall quality of education provided to county staff	✓	✓	
4e	Incentivize Counties to Train in Fidelity	By incentivizing Counties to have their trainings vetted by the State, the State can eliminate trainings not conducted in fidelity	✓	✓	

Based on the analysis of county challenges in Section 6, specific improvements to State-provided training could help enhance county processes and performance, as well as grow resource efficiency and effectiveness around the administration of public benefit assistance programs. As noted earlier, better allocation of resources, whether staff time, county funds, or technological tools, can further contribute to greater cost efficiencies. To achieve these benefits, the SDC can improve its training in the following ways:

- **Provide a comprehensive foundational training for new staff focused more heavily on processes in addition to policy knowledge.** Scenario testing should test as much policy understanding as practical solutions to case issues. By implementing this change, staff will be able to concentrate more on processing techniques and leading practices, rather than gaining only policy knowledge that they might not be able to put into action. This improvement can not only help staff decrease the time they spend in training, but also help them to be better prepared to process cases independently without extra supervision from managers. This can in turn reduce county costs and improve operations because supervisors will be able to concentrate on other managerial activities.

- **Continuously grow staff competence by offering ongoing training opportunities for all staff regardless of experience level.** In addition, the State or counties should be able to recommend specific training to staff based on their performance and error topics. This way ongoing training can be more targeted and help staff concentrate more on identifying their knowledge gaps and improving their weaknesses. In addition, staff should be required to periodically recertify, so that they can stay current on the latest policy and procedural changes. By implementing these changes, the State and counties can continuously grow staff knowledge and expertise, thereby improving the overall administration of public assistance programs.

- **Remote counties should either have the opportunity to attend trainings virtually, or in-person trainings should be available with reasonable accessibility for each county**. This practice can help eliminate the pressure on counties like Sedgwick, for example, that would otherwise have to spend the time to travel long distances to attend a training in a city. This does not only take away staff time from processing cases, but also adds to county costs.

- **Define the purpose of State and county-provided trainings.** The State should provide greater clarity around State and County roles in delivering trainings. For example, it should be specified that State-provided training is meant to focus on policies and regulations and their compliance with Federal and State guidelines. While county-specific trainings should be used to supplement State training and provide guidance on processes and procedures implemented at the county level. This clarification will help avoid confusion around who is responsible for policy and process related content and will improve the overall quality of education provided to county staff. In addition, State training should also consider

incorporating some of the common policy and systems related updates in its curricula to minimize the scope of county-specific trainings required.

- **Incentivize Counties to Train in Fidelity.** Given the state-supervised, county-administered system used in Colorado as well as the practice of "train the trainer," the State should design financial incentives for counties to validate their training curricula with State leadership. Specifically, this recommendation is addressed towards CDHS, since HCPF already employs such practice. By providing incentives to vet most county training materials, the State could gain greater confidence in the accuracy of county materials and their consistency with Federal and State training guidelines. This improvement will not only help enhance staff knowledge, but will also directly contribute to lower error rates and decreased processing times.

8.5. Recommendation 5: Adjust Cost and Budget Allocations to Counties and Programs

#	Title	Summary	Business Benefits		
			Improve Performance and Processes	Improve Resource Efficiency	Reduce County Admin Cost
5a	Research Alternative Cost Allocation Methodologies and Update Program Codes	Improve the cost allocation by researching alternative cost allocation methodologies and determining which most accurately represent direct costs; and update CFMS program codes		✓	
5b	Use Workload to Determine Budget Allocation, Adjusting for Cost of Living	Calculate budget allocation to counties and programs based on funding requirements as dictated by activity times to perform the work and level of effort. Consider using a multiplier that takes into account cost of living for counties		✓	
5c	Vary Enhanced and Non-Enhanced Split by County	Vary the percentage of Medical Assistance enhanced match received by county to encourage counties to shift their work to direct service provision and streamline back office processes	✓	✓	✓
5d	Continue to Use Performance Incentives	Continue to use performance incentives, and prioritize incentives that encourage counties to streamline or automate processes	✓	✓	✓

Currently, budget allocations to counties and programs are based on a formula derived from the 2007 Workload Study. This formula relies on each county's caseload for each of the programs and the amount of time spent on each type of activity (application, redetermination, etc.) While this approach has provided reliable figures in the past, the results of the 2007 Workload study may no longer be valid due to technological and policy changes in the last 10 years. Adjustments to the current budget allocation model could promote the full and equitable funding of county activities in support of the seven programs in a way that encourages efficiency and the overall program quality.

In addition to changes to budget allocation, Colorado should also improve its cost allocation methodology. Currently, RMS is the primary tool used to determine how costs are allocated across programs. Through RMS, the State compiles a statewide average that is used to allocate costs across programs for each county. Some counties expressed that because counties vary in the rate at which they provide certain programs, RMS results do not always accurately reflect their workload. Cost allocation based on RMS results also present a challenge for sufficiently determining over or under-spending for CDHS and HCPF programs. It should be noted, however, that counties can opt out of using RMS and can direct code their expenses instead.

Provided below are several ways in which budget allocation to counties and cost allocation across programs can be improved to accurately reflect county workload and the required resources.

- **Research Alternative Cost Allocation Methodologies and Update Program Codes**. To improve the cost allocation methodology, Colorado should either identify alternative cost allocation methodologies to RMS or consider encouraging counties to use periodic full-time reporting or other cost allocation methodologies, such as surveys or alternative technological tools. By using a more nuanced cost allocation methodology, the State could have a more accurate understanding of each county's costs across its several programs. Based on RMS results, county costs may be under-allocated to HCPF. According to current workload, HCPF costs reported in CFMS should be greater than what they currently are in the system.

  To further improve its cost allocation methodology, the State should consider updating its CFMS program codes. This improvement could allow counties to more accurately report their program costs and avoid generalizing their expenses into catch-all program codes. To encourage uniform reporting and comparison of county cost information, Colorado should also have standardized processes and procedures for how expenditures are classified and reported in the system. In addition, creation of new CBMS features such as detailed activity and time-tracking could allow for more a complete activities data and, as a result, more accurate cost allocation.

- **Update budget allocation based on workload and level of effort**. Workload here is used in the context of activity times required to perform the work. By updating county activity times in the budget allocation formula based on the results of this study, the State would be able to more accurately assess funding requirements to meet individual county workload demands and adjust funding sources based on anticipated needs. This approach would take into account varying rate at which counties provide certain services and would help replace the standard 53/47 percent budget split between CDHS and HCPF that is currently being used to allocate funds to all counties.

  The State should also continue to update counties' annual workload across MA and SNAP and use it as the main resource allocation driver to counties. Adjusting budget allocation based on updated activity times and case volume could help prevent both CDHS and HCPF programs from being under-funded and avoid future county over-spending. In addition to these resource drivers, Colorado should also use a fully burdened cost per case that takes into account all activities and overhead. In determining budget allocations, the State should take into account different cost of living for counties. Because counties with an above average cost of living are more likely to overspend, Colorado should consider using a cost of living multiplier to allocate funds to counties. However, a multiplier alone will not eliminate overspending.

- **Vary the enhanced and non-enhanced Medical Assistance split by county.** By adjust the percentage of Medical Assistance enhanced match received by county, the State could encourage counties to shift their work to direct service provision and streamline back office processes. For multiple years in a row, all counties received 64% enhanced funding as part of their HCPF allocation. However, counties spend on HCPF enhanced eligible activities at rates that can vary from as low as 40% to as high as 81%. The State may want to consider varying the amount of enhanced match funding based on the counties' dedication of resources to eligible activities, while still encouraging counties to focus on enhanced activities. If this incentive is effective, Colorado would save money because the State share is reduced in the enhanced match.

- **Continue to use performance incentives, and prioritize incentives that encourage counties to streamline or automate processes**. Interviewed counties reported that they have adjusted their practices in order to capture funds. Focusing on cost saving measures would assist in decreasing the likelihood that counties overspend. Colorado should also consider streamlining or centralizing some services to make it easier for counties to meet their workload obligations. For example, offering a centralized call center, workload management system, document scanning, or more centralized program integrity and fraud tools would enable counties to divert resources to mission-focused eligibility work.

8.6. Continue to Use a Minimum Allocation

#	Title	Summary	Business Benefits		
			Improve Performance and Processes	Improve Resource Efficiency	Reduce County Admin Cost
6a	Continue to Use the Minimum Allocation of 5% Below the Previous Year	The minimum allocation is important to give counties time to divest of resources as workload falls		✓	

Because all counties have a high percentage of fixed costs, using a base allocation level and a minimum allocation level enables counties with falling workload to gradually adjust their expenses year over year.

- **Continue to use the minimum allocation of 5% below the previous year**. Counties receiving the minimum allocation are less likely to overspend their CDHS allocation. The minimum allocation alone adequately funds counties with falling workload.

9. References

- County Provided Data
- Peer State Data
- State Provided Data
    - CAPER Metrics
    - CFMS Financial Data
    - County Allocation Metrics
    - Payment Accuracy Metrics
    - PER Metrics
- System Data
    - Program Volume
    - Application Timeliness
    - RRR Timeliness

10. Appendices

A. Activity Dictionary (AD)

The Activity Dictionary provides a mutually exclusive, collectively exhaustive taxonomy of possible activities performed by county staff throughout the week. It defines tasks that comprise public assistance program administration, as commonly accepted by county staff. The AD laid the foundation for the Activity Surveys distributed to all 64 counties.

B1. Activity Survey – Nine Counties

The survey administered to the nine pilot counties (Alamosa, Arapahoe, Denver, Douglas, Eagle, El Paso, Huerfano, Mesa, and Sedgwick) in April 2017 to record time spent on activities described in the Activity Dictionary. The time recorded by staff workers in the Activity Survey was the basis of our cost model analysis.

B2. Activity Survey – Statewide

The survey administered to the remaining 55 counties in May 2017. Minor changes were made to this survey from the nine county survey. In addition, HCPF Leadership requested we include Long Term Care questions for eligibility workers who complete these cases around the state.

C. List of County Size Classifications

The list of county size classifications was provided by State Leadership and is based on county caseload (vs. population). According to this list, there are 10 large counties, 22 medium counties, and 32 small counties. The analysis completed in the report used county size classifications to help identify trends and variations in county activity times, cost, and performance.

D. Official Visit Observations

This analysis is based on the information gathered through visits to the nine counties, interviews conducted with county staff, and observations of staff activities throughout the day. The findings for each county are outlined in four themes: People, Process, Technology, and Financial.

E. List of Work Group Team Members

This list identifies key team members and their organization that helped in the execution of this study. The major categories include: Work Group Members, County Directors, County Champions, and Deloitte Team Members.

F. County Survey Statistics (9 Counties)

A summary of some of the high-level questions asked in the county Activity Survey (Appendix B1) as well as survey response statistics from the nine counties.

G. County Survey Statistics (55 Counties)

A summary of some of the high-level questions asked in the county Activity Survey (Appendix B2) as well as survey response statistics from the fifty-five counties.

H. Monthly Status Report (MSR)—Mar_Apr_May_Jun 2017

Each month Deloitte completed a Monthly Status Report (March, April, May, and June) to identify status of milestones and highlight potential issues or risks that required State and County Leadership insight. Each MSR was discussed during a one hour meeting that included CDHS and HCPF Leadership, the work group members, and County Champions.

I. Midpoint Review Presentation

At project midpoint, Deloitte provided a summary of the major milestones completed, an initial analysis and findings, and a plan of action to complete the remaining steps and deliver the Final Report and Legislative Summary.

J. Mapping of Cost Type and CFMS Spending Categories

The document provides a list of CFMS program codes provided by the State that was used to conduct the analysis of county activities and costs across programs.

K. Explanation of Cost Per Case by Program

This appendix outlines how CostPerform (our cost model software) uses CFMS reported costs to derive a cost-per-case, taking direct and indirect costs into account.

L. Performance Measure Data

Deloitte used State-provided reports to conduct an analysis of New Application and RRR Processing Timeliness, CAPER, CAR, PER, and PAR for all 64 counties (Section 4.1). The original / raw data used to complete this analysis is included in this appendix.

M. Cost Model Assumptions

The document outlines specific assumptions made in the analysis of cost model results.

N. LTC Survey Results – May 2017

The appendix provides survey results for Long Term Care case-processing questions requested to be included in the fifty-five county survey by HCPF Leadership.

O. New Application Timeliness by County by Program by Month

The document outlines each county's New Application processing timeliness for AF, CW, FA, and MA during calendar year 2016.

P. RRR Timeliness by County by Program by Month

The document outlines each county's RRR processing timeliness for AF, CW, FA, and MA during calendar year 2016.

Q. Average Activity Survey Times for 64 Counties

The appendix provides a consolidated view of each county's average activity time based on the two surveys distributed. The nine pilot counties (Alamosa, Arapahoe, Denver, Douglas, Eagle, El Paso, Huerfano, Mesa, and Sedgwick) completed the activity survey first in April 2017 (refer to Appendix B1 for full survey). The remaining 55 counties completed the survey in May 2017 (refer to Appendix B2 for full survey).

R. Average Activity Cost per Case for Nine Pilot Counties

The appendix provides a comparison of activity cost per case for each of the nine pilot counties. The activities are from the Activity Survey (appendix B1) and are outlined in Appendix A. The cost per case is an average of the cost to process a case aligned to the seven programs in this study: AND, CHP+, LTC, MA, OAP-Cash, SNAP, and TANF.

S. Performance Comparison by County by Program

The appendix provides a comparison of case processing time, cost per case, and performance for New Application and RRR for each of the nine counties across the following programs: Adult Financial, Colorado Works / TANF, Food Assistance / SNAP, and Medical Assistance. Adult Financial includes Old Age Pension - Cash (OAP) and Aid for the Needy and Disabled (AND).

T. Cost Model Results - All Counties

The appendix provides the high level cost model results for all the counties across the following programs: Adult Financial, Colorado Works / TANF, Food Assistance / SNAP, and Medical Assistance. Adult Financial includes Old Age Pension - Cash (OAP) and Aid for the Needy and Disabled (AND).