Schedule 13

Department of Health Care Policy and Financing

Funding Request for The FY 2021-22 Budget Cycle

Request Title

R-09 Patient Access and Interoperability Rule Compliance

Dept. Approval By:

OSPB Approval By:

Supplemental FY 2020-21

Budget Amendment FY 2021-22

X

Change Request FY 2021-22

Summary Information	Fund	FY 2020-21		FY 2021-22		FY 2022-23
		Initial Appropriation	Supplemental Request	Base Request	Change Request	Continuation
Total of All Line Items Impacted by Change Request	Total	$182,511,254	$0	$186,838,342	$2,862,999	$2,004,759
	FTE	520.4	0.0	521.2	1.0	1.0
	GF	$40,245,521	$0	$42,336,424	($1,552)	$303,157
	CF	$17,207,991	$0	$17,694,424	$0	$0
	RF	$2,570,836	$0	$2,198,408	$0	$0
	FF	$122,486,906	$0	$124,609,086	$2,864,551	$1,701,602

Line Item Information	Fund	FY 2020-21		FY 2021-22		FY 2022-23
		Initial Appropriation	Supplemental Request	Base Request	Change Request	Continuation
01. Executive Director's Office, (A) General Administration, (1) General Administration - Personal Services	Total	$41,276,479	$0	$41,080,782	$68,988	$71,751
	FTE	520.4	0.0	521.2	1.0	1.0
	GF	$14,487,249	$0	$14,650,129	$34,494	$35,875
	CF	$3,911,124	$0	$3,939,903	$0	$0
	RF	$2,305,357	$0	$1,892,777	$0	$0
	FF	$20,572,749	$0	$20,597,973	$34,494	$35,876
01. Executive Director's Office, (A) General Administration, (1) General Administration - Health, Life, and Dental	Total	$5,264,801	$0	$6,826,728	$10,042	$10,042
	FTE	0.0	0.0	0.0	0.0	0.0
	GF	$1,342,322	$0	$2,480,588	$5,021	$5,021
	CF	$548,313	$0	$573,987	$0	$0
	RF	$138,532	$0	$173,157	$0	$0
	FF	$3,235,634	$0	$3,598,996	$5,021	$5,021

Line Item Information	Fund	FY 2020-21		FY 2021-22		FY 2022-23
		Initial Appropriation	Supplemental Request	Base Request	Change Request	Continuation
01. Executive Director's Office, (A) General Administration, (1) General Administration - Short-term Disability	Total	$72,366	$0	$71,148	$104	$108
	FTE	0.0	0.0	0.0	0.0	0.0
	GF	$26,778	$0	$26,526	$52	$54
	CF	$5,695	$0	$5,510	$0	$0
	RF	$1,607	$0	$1,644	$0	$0
	FF	$38,286	$0	$37,468	$52	$54
01. Executive Director's Office, (A) General Administration, (1) General Administration - Amortization Equalization Disbursement	Total	$2,188,905	$0	$2,223,320	$3,070	$3,193
	FTE	0.0	0.0	0.0	0.0	0.0
	GF	$810,157	$0	$828,912	$1,535	$1,596
	CF	$172,037	$0	$172,189	$0	$0
	RF	$48,635	$0	$51,380	$0	$0
	FF	$1,158,076	$0	$1,170,839	$1,535	$1,597
01. Executive Director's Office, (A) General Administration, (1) General Administration - Supplemental Amortization Equalization Disbursement	Total	$2,188,905	$0	$2,223,320	$3,070	$3,193
	FTE	0.0	0.0	0.0	0.0	0.0
	GF	$810,157	$0	$828,912	$1,535	$1,596
	CF	$172,037	$0	$172,189	$0	$0
	RF	$48,635	$0	$51,380	$0	$0
	FF	$1,158,076	$0	$1,170,839	$1,535	$1,597
01. Executive Director's Office, (A) General Administration, (1) General Administration - Operating Expenses	Total	$2,356,365	$0	$2,248,313	$5,653	$950
	FTE	0.0	0.0	0.0	0.0	0.0
	GF	$954,547	$0	$919,906	$2,826	$475
	CF	$214,413	$0	$200,711	$0	$0
	RF	$13,297	$0	$13,297	$0	$0
	FF	$1,174,108	$0	$1,114,399	$2,827	$475
01. Executive Director's Office, (C) Information Technology Contracts and Projects, (1) Information Technology Contracts and Projects - MMIS Maintenance and Projects	Total	$73,227,142	$0	$76,228,440	$3,572,211	$2,715,661
	FTE	0.0	0.0	0.0	0.0	0.0
	GF	$9,703,222	$0	$10,490,362	$410,804	$695,209
	CF	$6,312,421	$0	$6,757,984	$0	$0
	RF	$12,204	$0	$12,204	$0	$0
	FF	$57,199,295	$0	$58,967,890	$3,161,407	$2,020,452

| Line Item Information | Fund | FY 2020-21 | | FY 2021-22 | | FY 2022-23 |
		Initial Appropriation	Supplemental Request	Base Request	Change Request	Continuation
	Total	**$48,332,662**	**$0**	**$48,332,662**	**$150,000**	**$150,000**
01. Executive Director's Office, (C) Information Technology Contracts and Projects, (1) Information Technology Contracts and Projects - Colorado Benefits Management Systems, Operating & Contracts	FTE	0.0	0.0	0.0	0.0	0.0
	GF	$10,194,988	$0	$10,194,988	$17,250	$38,400
	CF	$5,871,951	$0	$5,871,951	$0	$0
	RF	$2,569	$0	$2,569	$0	$0
	FF	$32,263,154	$0	$32,263,154	$132,750	$111,600
	Total	**$7,603,629**	**$0**	**$7,603,629**	**($950,139)**	**($950,139)**
01. Executive Director's Office, (C) Information Technology Contracts and Projects, (1) Information Technology Contracts and Projects - Health Information Exchange Maintenance and Projects	FTE	0.0	0.0	0.0	0.0	0.0
	GF	$1,916,101	$0	$1,916,101	($475,069)	($475,069)
	CF	$0	$0	$0	$0	$0
	RF	$0	$0	$0	$0	$0
	FF	$5,687,528	$0	$5,687,528	($475,070)	($475,070)

Auxiliary Data			
Requires Legislation?	NO		
Type of Request?	Department of Health Care Policy and Financing Prioritized Request	**Interagency Approval or Related Schedule 13s:**	Requires OIT Approval

Department of Health Care Policy & Financing

FY 2021-22 Funding Request

November 1, 2020

Jared Polis
Governor

Kim Bimestefer
Executive Director

Department Priority: R-9
Request Detail: Patient Access and Interoperability Rule Compliance

Summary of Funding Change for FY 2021-22				
	Totals		Incremental Change	
	FY 2020-21 Appropriation	FY 2021-22 Base	FY 2021-22 Request	FY 2022-23 Request
Total Funds	$182,511,254	$186,838,342	$2,862,999	$2,004,759
FTE	520.4	521.2	1.0	1.0
General Fund	$40,245,521	$42,336,424	($1,552)	$303,157
Cash Funds	$17,207,991	$17,694,424	$0	$0
Reappropriated Funds	$2,570,836	$2,198,408	$0	$0
Federal Funds	$122,486,906	$124,609,086	$2,864,551	$1,701,602

Summary of Request:

The Department requests funding adjustments to comply with the Centers for Medicare and Medicaid Services (CMS) Patient Access and Interoperability final rule (CMS-9115-F). The resources would be used to facilitate patient access to their own Medicaid health care claims information via commonly available consumer third-party applications. Under the final rule, all state Medicaid agencies and all Medicaid and Children's Health Insurance Program (CHIP) plans must meet specific technology and data sharing standards that enables patient access to health care information that aligns with the United States Core Data for Interoperability (USCDI). The Department does not currently have the technology or data sharing arrangements in place to meet the standards set forth in the final rule on accessing this information.

Compliance with the federal rule for data access offers patients the ability to make more informed decisions regarding their health care. This request aligns with Step 2 on the evidence continuum based on studies that have examined similar models.

The Department anticipates that approval of the request would ensure that the Department is in compliance with the federal Patient Access and Interoperability rule no later than July 1, 2022. This request represents an increase of less than 0.5% from the Department's FY 2020-21 Long Bill total funds appropriation.

Current Program:

Pursuant to the Health Insurance Portability and Accountability Act of 1996 (HIPAA), all patients, including Medicaid and Children's Basic Health Plan Plus (CHP+) members, have the right to view their health care records. Currently, Medicaid members may exercise their right to access data by contacting the Department directly and requesting data to be sent to them. The Department must manually extract the information and provide the member their protected health record data. This work is often time consuming and the information may not be provided to members in enough time for them to consider the information before making their health care decisions.

Problem or Opportunity:

On April 21, 2020 the Centers for Medicare and Medicaid Services (CMS) issued a final rule on Patient Access and Interoperability, with compliance required by July 1, 2021. [1] Failure to comply may result in the loss of federal financial participation.

Under the final rule, all state Medicaid agencies and all Medicaid and Children's Health Insurance Program (CHIP)[2] plans must meet specific technology and data sharing standards that enables patient access to health care information that aligns with the United States Core Data for Interoperability[3] (USCDI). The Department does not currently have the technology or data sharing arrangements in place to meet the standards set forth in the final rule on accessing this information.

The requirements are explicit in that the Department must make member health information accessible via third-party applications (apps). The rule does not require the Department to create or manage an app with the member information, but rather to facilitate the sharing of Medicaid member information with third-party apps, such as those available on the Apple Store or Google Play.

The current global environment of electronic health information availability is often siloed. Many health plan types offer some form of electronic health record (EHR), although most use proprietary applications specific to certain providers or health plans. Under this model individuals are tasked with managing their health care potentially through multiple systems or applications. Providers are also limited with the information they have available to inform health care recommendations because there is no central repository through which all data flows. For example, if a current Medicaid member experiences income instability and churns between private insurance and Medicaid, that member would need to manage access to both private and public health information repositories and likely need to aggregate that information on their own. This could become burdensome and dissuade the member from taking an active role in managing their own health.

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[1] https://www.cms.gov/files/document/cms-9115-f.pdf
[2] Colorado's Children's Health Insurance Program operates under the name Child Health Plan *Plus* (CHP+)
[3] https://www.healthit.gov/isa/sites/isa/files/2020-03/USCDI-Version1-2020-Final-Standard.pdf

This problem could also leave providers without the full picture of their patient's health, which makes managing health outcomes difficult.

On December 13, 2016 the 21st Century Cures Act (Cures Act) was signed into law. The bill promotes and funds several initiatives from accelerating research for serious illnesses, to addressing the opioid abuse crisis and improving mental health. The legislation also included several provisions to push for greater interoperability and adoption of EHRs universally. These provisions place an emphasis on providing patients access to their electronic health information that is easy to understand, secure and updated automatically. To address and provide guidance on these provisions, CMS issued the Patient Access and Interoperability final rule to break down the siloes and make managing one's health care as streamlined as possible.

To comply with the new federal regulations, the Department would need to work with multiple vendors to build the necessary infrastructure to facilitate the data exchange as well as maintain the infrastructure ongoing.

Proposed Solution:

The Department requests $2,862,999 total funds, including a reduction of $1,552 General Fund, an increase of $2,864,551 federal funds and 1.0 FTE in FY 2021-22; $2,004,759 total funds, including $303,157 General Fund, $1,701,602 federal funds and 1.0 FTE in FY 2022-23; and $2,043,874 total funds, including $313,171 General Fund, $1,730,703 federal funds and 1.0 FTE in FY 2023-24 and ongoing to implement and maintain the project required under the Patient Access and Interoperability rule.

The Department has titled its implementation of the CMS Patient Access and Interoperability final rule the "Colorado Medicaid Blue Button" project which will model the Medicare "Blue Button Initiative".[4] The Medicare Blue Button Initiative is a system for patients to view online and download their Medicare claims data. Several federal agencies, including the departments of Defense, Health and Human Services, and Veterans Affairs, implemented this capability for their beneficiaries. In addition, the Medicare Blue Button Initiative has pledges of support from numerous national health plans and some vendors of personal health record vendors across the United States. Data from Blue Button-enabled applications can be used to create portable medical histories that facilitate dialog among health care providers, caregivers, and other trusted individuals or entities. The Department would use the Medicare Blue Button Initiative framework as a model for complying with the Patient Access and Interoperability rule through its own Colorado Medicaid Blue Button project.

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[4] https://www.medicare.gov/manage-your-health/medicares-blue-button-blue-button-20

The requested funding would enhance or develop new system functionalities to meet rule standards and develop application programming interfaces (APIs) to facilitate the exchange of member claims data with third-party applications.

The four components of this request include:

1. Colorado Medicaid Blue Button Program Manager for management of the program.
2. Vendor infrastructure costs to facilitate the exchange of data.
3. Offset costs in FY 2020-21 and FY 2021-22 by leveraging existing vendor contracts and repurposing money in the existing appropriation.
4. Flexibility to receive additional federal funds when available.

Colorado Medicaid Blue Button Program Manager
The request includes 1.0 FTE to serve as the Colorado Medicaid Blue Button Program Manager to coordinate the implementation and ongoing efforts of the Interoperability rule. This position would serve as the single point of contact for the implementation of the Colorado Medicaid Blue Button project and facilitate collaboration between the Department and vendors creating the infrastructure. The project would require involvement from several of the Department's current vendors and the Department would require staff to provide oversight of the collaboration. This position would consult with the contracted vendor staff in areas of testing and results, deficiencies in existing functionality and resolving gaps in functionality that do not fully meet Department business needs. This position would ensure that all implemented functionality and changes into the system accurately reflect the technical rules and business logic to support the Department programs and initiatives.

Vendor Costs
The Department requests funding to support vendor hosting of an open, industry-standard application programming interface (API) framework that would make Medicaid claims data accessible by authorized third-party applications. The Department would leverage existing vendor contracts to begin the infrastructure design work. The technical components of the infrastructure required are outlined below.

Medicaid Data Conversion and Hosting
The Department intends to make its Medicaid claims and provider data available to third-party applications using the Health Level Seven International (HL7)[5] Fast Healthcare Interoperability Resources (FHIR) industry standard as required by the CMS rule[6]. This requires new, separate hardware and software infrastructure to ensure that third-party data access does not interfere with existing Department claims and provider operations. The Department would leverage the existing

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[5] https://www.hl7.org/implement/standards/index.cfm?ref=nav
[6]https://www.cms.gov/newsroom/fact-sheets/interoperability-and-patient-access-fact-sheet#:~:text=CMS%20is%20adopting%20the%20standards,and%20security%20of%20patient%20information.&text=Patients%20have%20a%20right%20under%20HIPAA%20to%20access%20their%20health%20information.

Business Intelligence and Data Management System (BIDM) contract to provide the mechanism for exchanging electronic health information data through FHIR protocols.

User Authentication Licensing

The Department would need to support secure user authentication when accessing information via the third-party apps. The Department would leverage the existing eligibility and enrollment system, Colorado Benefits Management Systems (CBMS), contract and its Program Eligibility and Application Kit (PEAK) to reuse authentication services to manage Medicaid members' username and password management. This work would require additional connections to the CBMS servers, resulting in additional licensing costs.

Third-Party Application Support

Third-party app developers seeking to connect their mobile applications to Medicaid APIs need an online resource to facilitate their development and testing. The Department envisions an independent contractor would host the tools necessary to connect, authenticate, test, and administrate third-party applications both during and after the typical development life cycle. This resource would also be responsible for initiating the application approval process with the Department and ensuring third-party developers' adherence to all applicable legal and security policies. The Department would leverage existing contracts with the Colorado Regional Health Information Exchange (CORHIO) to implement this requirement.

Technical Compliance

The Department does not maintain the expertise to implement developer APIs. Per the CMS rule, published open standards such as FHIR and OAuth 2.0—an industry-standard protocol for authorization need to be enforced for third-party applications. The Department would work with the Governor's Office of Information Technology (OIT) to assist with resources for evaluating data sharing via APIs to ensure the infrastructure meets all applicable state and federal security standards.

External Interfaces

The Department engages with smaller health plans serving Medicaid and/or CHIP members in Colorado that are required to comply with the CMS rule but would not have the resources to procure and/or maintain their own technology independently. In this case, the Department would interface directly to the plans and make data available on their behalf.

Repurpose Existing Funding

The Department is requesting to repurpose existing funding within the Medicaid Enterprise System appropriation in FY 2020-21 and FY 2021-22 to begin work on the Colorado Medicaid Blue Button Project. CMS has a stated deadline to comply with the rule by July 1, 2021. Given how late CMS published the final rule, the Department does not expect to be able to be fully implemented by July 1st. The Department does, however, expect to be fully implemented by July 1, 2022 if this budget request is approved. The Department does not expect CMS to issue any

disallowances regarding the failure to comply by July 1, 2021 as long as it can demonstrate that work has begun and there is a plan to become compliant by July 1, 2022.

During the FY 2015-16 budget cycle, the Department requested funding to begin planning for a Personal Health Record (PHR) without specifying a modality for patient access. Now that consumer mobile app technologies (and secure data standards) are ubiquitous in the marketplace, this request intends to make use of prior funding as well as new funding to implement the Colorado Blue Button platform that allows third-party applications (such as those available on the Apple Store or Google Play) to connect to Medicaid claims data as required by the CMS rule. Under the final rule, issued April 2020, all state Medicaid agencies, Medicaid and CHIP health plans must meet specific technology and data sharing standards to enable patient access to health care information through third-party applications.

The Department has engaged in discussions with its current Medicaid Enterprise System contractors and has negotiated several rate reductions to be as cost effective to the State as possible. The Department requests to use funding from those rate reductions as well as use existing and unallocated pool hours to begin this work immediately and continue into FY 2021-22. Examples of Department contractors where rate reductions were negotiated include, the MMIS vendor, BIDM vendor, Independent Verification and Validation (IV&V) vendor, Solicitation Drafter vendor, and Project Management vendor. The reductions negotiated above are primarily funded at 75% FFP, but when leveraged at 90% FFP for the design and development of the infrastructure, the Department could make existing resources stretch much further. In addition, the Department assessed other areas of the Medicaid Enterprise System (MES) budget and recognized that its mailing budget, appropriated at 50% FFP is larger than necessary. With approval of this request and because the General Assembly removed the (M) headnote restriction for this line item for FY 2020-21, the Department would be able to fund initial implementation work for the Colorado Medicaid Blue Button project without additional appropriations until FY 2022-23 for support of ongoing operations. Ongoing funding would be required to support the operations of the project, but that funding would not be needed until FY 2022-23.

Federal Funds Flexibility
The Department requests permanent removal of the (M) headnote applied to General Fund for two Long Bill line items under Long Bill Group (1) Executive Director's Office; (C) Information Technology Contracts and Projects. Those appropriations are Medicaid Management Information System Maintenance and Projects and Office of eHealth Innovation Operations.

To maximize the appropriated state resources in the current and request year to fully fund initial implementation in a budget neutral manner, the Department requests that the General Assembly continue to allow unrestricted use of the appropriated General Fund for the Information Technology Contracts and Projects line items. When the Department requests funding for these lines, it estimates the costs and federal matching rates that might apply to those costs.

Appropriations are set in advance of federal approval on match rates; as federal approvals change, the Department's appropriations can become out of balance with federally approved fund splits, significantly impacting the ability to implement changes. CMS does not always approve federal financial participation rates as anticipated and there can be significant differences between the estimates and final approved rates. The match rates can vary from 50% FFP, 75% FFP, and 90% FFP for Medicaid, and in 65% FFP for CHIP.

In the past, the Department has experienced delayed implementations on projects where higher federal match rates were approved after the State budget process concluded. According to a study conducted by McKinsey & Company with the University of Oxford,[7] large information technology projects run on average 45% over budget and 7% over time. If delays and overruns happen, the restriction imposed by the (M) headnote further inhibits the Department's ability to implement approved projects, leading to delayed implementation and potential cost increases.

With the (M) headnote removed permanently from Medicaid Enterprise System related appropriations, the flexibility to seek enhanced federal funding during the design, development, and implementation (DDI) phase and use any savings to offset potential over runs in future years would prevent the Department from having to delay implementation of projects pending further budgetary approvals. The lines requesting relief are administrative, rather than programmatic and would not limit the General Assembly's authority to dictate policy.

The programs impacted by this request would fall under Step 1: Program Design of the Evidence Continuum. To comply with federal requirements, the Department is modeling the solution after the Medicare Blue Button project. Although the Medicare Blue Button project would likely fall under Step 2: Identify Outputs of Continuum, the Department's project is in the initial stages of program design using the Medicare solution as a model.

Anticipated Outcomes:

The Department anticipates that approval of the request would ensure that the Department is in compliance with the federal Patient Access and Interoperability rule no later than July 1, 2022.

The Department continuously seeks to improve all areas of operations, whether it relates to federal mandates or changes to improve the provider/member experience. The Department anticipates that approval of this request would further the Department's mission of improving health care access and outcomes for the people it services while demonstrating sound stewardship of financial resources. The funding in the request addresses critical needs that if left unfunded would negatively impact the Department's ability to meet the needs of Health First Colorado members.

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[7] https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/delivering-large-scale-it-projects-on-time-on-budget-and-on-value#

The request ties to the Governor's Wildly Important Goals, specifically "Save Coloradans money on health care". Specifically, the implementation of the Colorado Medicaid Blue Button project would give members access to more data one the services paid through Medicaid. This enables the member to make more informed choices on their health care needs, while saving money in the process.

The request aligns with all four of the Department's strategic pillars; Health Care Affordability for Coloradans, Improve Member Health, Medicaid Cost Control and Customer Service. Implementing the Colorado Medicaid Blue Button project would allow members to manage their health care needs while also investigating costs of services. The request would facilitate the improvement of member health through providing the data exchange necessary for members to ensure they receive the right services at the right price. Lastly the request would help deliver an improved customer experience by having a one-stop shop for members to access to their health care information.

Implementation of similar patient access models in the Veterans Administration health system indicate that patients take advantage of "blue button" tools.[8,9] There is little documented evidence of the extent to which patient access to data alters health care decisions, however. The Department believes the evidence for this program aligns with Step 2 on the evidence continuum.

Assumptions and Calculations:

The Department assumes that it would not be fully implemented by the CMS deadline of July 1, 2021 but would have communicated with CMS on the Department's plan on how and when it expects to be fully operational, through an APD submission. The Department assumes implementation would be complete by July 1, 2022. The Department assumes that CMS would not penalize the Department for not meeting the deadline as long as the Department demonstrates that it has begun to work on implementation and has a plan to come into compliance.

Colorado Medicaid Blue Button Program Manager
The Department would hire 1.0 FTE at the Project Management I classification beginning July 1, 2021. This position would be required indefinitely and as CMS rules and requirements regarding patient access to health data evolves, the FTE would lead and coordinate those efforts. The Department assumes that this FTE would be funded through the standard MMIS cost allocation methodology. The costs associated with the FTE would be included in a Department Advanced Planning Document (APD) update by April 2021 to ensure funding is approved prior to the start of the fiscal year.

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[8] Klein DM, Fix GM, Hogan TP, Simon SR, Nazi KM, Turvey CL. Use of the Blue Button Online Tool for Sharing Health Information: Qualitative Interviews With Patients and Providers. J Med Internet Res. 2015;17(8):e199.
[9] Turvey C, Klein D, Fix G, et al. Blue Button use by patients to access and share health record information using the Department of Veterans Affairs' online patient portal. J Am Med Inform Assoc. 2014;21(4):657-663.

Vendor Costs

The Department assumes that work would begin in the current year and continue into FY 2021-22 and would be completed with existing pool hours already in vendor contracts. No additional funds would be required. The Department assumes that because the initial scope of the project would be completed with exiting pool hours and fall under the scope of the approved APD, a new federal APD request for project funding would not be required until October 1, 2022, which is federal fiscal year (FFY) 2022-23. The additional funding required in FY 2022-23 would require the Department to submit an APD for the additional scope. CMS requires 60 days for APD review, so the Department would submit an APD for the additional funding by June 1, 2022, giving adequate time for CMS's 60-day approval timeline.

The Department assumes that various roles would be required through the contracted vendors to design and implement the Colorado Medicaid Blue Button project and a list of those roles are provided below in Table 1: Third-Party Application Support Staffing Responsibilities. The Department has provided estimates for hourly rates and the number of hours required for each role in the appendix; the actual procured contractor may vary from the budget estimate based on results from competitive procurement.

Table 1: Third-Party Application Support Staffing Responsibilities

Role	Responsibility
Project Manager(s)	The role is responsible for outlining and oversight of implementation projects. They design the project goals and success markers, determine how success will be measured and tracked. They ensure the project remains on time and on budget and help motivate team members to hit their goals. Project Managers also act as liaisons between the project team and upper level management. They prepare and present progress reports and ensure the project is furthering organizational goals.
Developer (API/FHIR)	This role shall design, develop, and configure application programing interfaces to the Fast Healthcare Interoperability Resource (FHIR) specification. Specifically, the role shall be responsible for and work collaboratively with other roles on programming and software development using various programming languages and related tools and frameworks, reviewing code written by other programmers, requirement gathering, bug fixing, testing, documenting and implementing software systems.

Role	Responsibility
Quality Assurance Tester	The role is primarily responsible for checking, for defects or issues related to the development of the platform. QA test data output to ensure all standards and guidelines are being met. This role will identify issues and run debugging programs as needed. The Tester will also generate reports, work with software developers to correct issues, and upgrade databases as required.
Business Analyst	The role is primarily responsible for completing business requirements and documenting technical design documentation. In addition, this role builds out the requirements traceability matrix to ensure that development efforts align with the expected outcomes.
Security Analyst	This role owns evaluation of all components and ensures their compliance with related security requirements to ensure that key privacy and security requirements are met and maintained by the Department's Application Programing Interfaces (APIs). These requirements shall include encryption of data in transit, input validation of API calls, access controls, data integrity protection, technical methods for revoking sharing permissions, and service provider and patient portal security.
System Administrator	This role shall monitor the daily operations of the API and will assist with prevention and mitigation of API performance issues. Additionally, the role is the point-of-contact for developers when they experience problems with the API. The system administrator will gather information to define the issue and will resolve issues by trouble shooting hardware liaising with vendors if needed for more information.
Support Analyst	The role will serve as the point of contact on system outages and initiate the incident management process.
Legal Analyst	This role shall help development of the Department's Colorado Medicaid Blue Button Trust Framework and Code of Conduct. The Framework and Code will protect Colorado Medicaid members by serving as a mechanism to hold participating application software developers to generally accepted, nationwide privacy and security standards and principles. The role will operationalize this Framework and Code as a part of the application registration process. Further, this role shall develop privacy policies and organizational security policies.

Repurpose Existing Funding

The Department assumes that it would use 1,680 hours of existing pool hours at a rate of $134 per hour from the CBMS contract and 9,090 hours of existing pool hours at a rate of $165 per hour from the BIDM contract to fund the contract costs in FY 2020-21. The Department assumes that funding from the Department's FY 2015-16 R-9 "Personal Health Records and Online Health Education" would be used to fully offset the request in FY 2021-22 and partially offset the request in the out years.

See Appendix A: Assumptions and Calculations for calculation of reductions.

				Table 1.1 **Summary by Line Item** **FY 2021-22**				
Row	Line Item	Total Funds	FTE	General Fund	Cash Funds	Reappropriated Funds	Federal Funds	FFP Rate	Notes/Calculations
A	(1) Executive Director's Office; (A) General Administration, Personal Services	$68,988	1.0	$34,494	$0	$0	$34,494	50.00%	Table 2.1, Row B
B	(1) Executive Director's Office; (A) General Administration, Health, Life, Dental	$10,042	0.0	$5,021	$0	$0	$5,021	50.00%	Table 2.1, Row C
C	(1) Executive Director's Office; (A) General Administration, Short-term Disability	$104	0.0	$52	$0	$0	$52	50.00%	Table 2.1, Row D
D	(1) Executive Director's Office; (A) General Administration, S.B. 04-257 Amortization Equalization Disbursement	$3,070	0.0	$1,535	$0	$0	$1,535	50.00%	Table 2.1, Row E
E	(1) Executive Director's Office; (A) General Administration, S.B. 06-235 Supplemental Amortization Equalization Disbursement	$3,070	0.0	$1,535	$0	$0	$1,535	50.00%	Table 2.1, Row F
F	(1) Executive Director's Office; (A) General Administration, Operating Expenses	$5,653	0.0	$2,826	$0	$0	$2,827	50.01%	Table 2.1, Row G
G	(1) Executive Director's Office; (C) Information Technology Contracts and Projects, Medicaid Management Information System Maintenance and Projects	$3,572,211	0.0	$410,804	$0	$0	$3,161,407	88.50%	Table 2.1, Row I
H	(1) Executive Director's Office; (C) Information Technology Contracts and Projects, Health Information Exchange Maintenance and Projects	($950,139)	0.0	($475,069)	$0	$0	($475,070)	50.00%	Table 2.1, Row K
I	(1) Executive Director's Office; (C) Information Technology Contracts and Projects, Colorado Benefits Management Systems, Operating and Contract Expenses	$150,000	0.0	$17,250	$0	$0	$132,750	88.50%	Table 2.1, Row J
J	**Total Request**	**$2,862,999**	**1.0**	**($1,552)**	**$0**	**$0**	**$2,864,551**		**Sum of Rows A thru I**

<table>
<tr><td colspan="10">Table 1.2
Summary by Line Item
FY 2022-23</td></tr>
</table>

Row	Line Item	Total Funds	FTE	General Fund	Cash Funds	Reappropriated Funds	Federal Funds	FFP Rate	Notes/Calculations
A	(1) Executive Director's Office; (A) General Administration, Personal Services	$71,751	1.0	$35,875	$0	$0	$35,876	50.00%	Table 2.2, Row B
B	(1) Executive Director's Office; (A) General Administration, Health, Life, Dental	$10,042	0.0	$5,021	$0	$0	$5,021	50.00%	Table 2.2, Row C
C	(1) Executive Director's Office; (A) General Administration, Short-term Disability	$108	0.0	$54	$0	$0	$54	50.00%	Table 2.2, Row D
D	(1) Executive Director's Office; (A) General Administration, S.B. 04-257 Amortization Equalization Disbursement	$3,193	0.0	$1,596	$0	$0	$1,597	50.02%	Table 2.2, Row E
E	(1) Executive Director's Office; (A) General Administration, S.B. 06-235 Supplemental Amortization Equalization Disbursement	$3,193	0.0	$1,596	$0	$0	$1,597	50.02%	Table 2.2, Row F
F	(1) Executive Director's Office; (A) General Administration, Operating Expenses	$950	0.0	$475	$0	$0	$475	50.00%	Table 2.2, Row G
G	(1) Executive Director's Office; (C) Information Technology Contracts and Projects, Medicaid Management Information System Maintenance and Projects	$2,715,661	0.0	$695,209	$0	$0	$2,020,452	74.40%	Table 2.2, Row I
H	(1) Executive Director's Office; (C) Information Technology Contracts and Projects, Health Information Exchange Maintenance and Projects	($950,139)	0.0	($475,069)	$0	$0	($475,070)	50.00%	Table 2.2, Row K
I	(1) Executive Director's Office; (C) Information Technology Contracts and Projects, Colorado Benefits Management Systems, Operating and Contract Expenses	$150,000	0.0	$38,400	$0	$0	$111,600	74.40%	Table 2.2, Row J
J	**Total Request**	**$2,004,759**	**1.0**	**$303,157**	**$0**	**$0**	**$1,701,602**		**Sum of Rows A thru I**

	Table 1.3 Summary by Line Item FY 2023-24							
Row	Line Item	Total Funds	FTE	General Fund	Cash Funds	Reappropriated Funds	Federal Funds	FFP Rate	Notes/Calculations
A	(1) Executive Director's Office; (A) General Administration, Personal Services	$71,751	1.0	$35,875	$0	$0	$35,876	50.00%	Table 2.3, Row B
B	(1) Executive Director's Office; (A) General Administration, Health, Life, Dental	$10,042	0.0	$5,021	$0	$0	$5,021	50.00%	Table 2.3, Row C
C	(1) Executive Director's Office; (A) General Administration, Short-term Disability	$108	0.0	$54	$0	$0	$54	50.00%	Table 2.3, Row D
D	(1) Executive Director's Office; (A) General Administration, S.B. 04-257 Amortization Equalization Disbursement	$3,193	0.0	$1,596	$0	$0	$1,597	50.02%	Table 2.3, Row E
E	(1) Executive Director's Office; (A) General Administration, S.B. 06-235 Supplemental Amortization Equalization Disbursement	$3,193	0.0	$1,596	$0	$0	$1,597	50.02%	Table 2.3, Row F
F	(1) Executive Director's Office; (A) General Administration, Operating Expenses	$950	0.0	$475	$0	$0	$475	50.00%	Table 2.3, Row G
G	(1) Executive Director's Office; (C) Information Technology Contracts and Projects, Medicaid Management Information System Maintenance and Projects	$2,754,776	0.0	$705,223	$0	$0	$2,049,553	74.40%	Table 2.3, Row I
H	(1) Executive Director's Office; (C) Information Technology Contracts and Projects, Health Information Exchange Maintenance and Projects	($950,139)	0.0	($475,069)	$0	$0	($475,070)	50.00%	Table 2.3, Row K
I	(1) Executive Director's Office; (C) Information Technology Contracts and Projects, Colorado Benefits Management Systems, Operating and Contract Expenses	$150,000	0.0	$38,400	$0	$0	$111,600	74.40%	Table 2.3, Row J
J	**Total Request**	**$2,043,874**	**1.0**	**$313,171**	**$0**	**$0**	**$1,730,703**		**Sum of Rows A thru I**

Table 2.1
Summary by Initiative
FY 2021-22

Row	Item	Total Funds	FTE	General Fund	Cash Funds	Reappropriated Funds	Federal Funds	FFP Rate	Notes/Calculations
A	FTE Costs								
B	Personal Services	$68,988	1.0	$34,494	$0	$0	$34,494	50.00%	Table 5.2, Row A
C	Health, Life and Dental	$10,042	0.0	$5,021	$0	$0	$5,021	50.00%	Table 5.2, Row B
D	Short-term Disability	$104	0.0	$52	$0	$0	$52	50.00%	Table 5.2, Row C
E	SB 04-257 Amortization Equalization	$3,070	0.0	$1,535	$0	$0	$1,535	50.00%	Table 5.2, Row D
F	SB 06-235 Supplemental Amortization Equalization Disbursement	$3,070	0.0	$1,535	$0	$0	$1,535	50.00%	Table 5.2, Row E
G	Operating Expenses	$5,653	0.0	$2,826	$0	$0	$2,827	50.01%	Table 5.2, Row F
H	Contractor Costs								
I	MMIS	$3,572,211	0.0	$410,804	$0	$0	$3,161,407	88.50%	Table 3.2 Rows J
J	CBMS	$150,000	0.0	$17,250	$0	$0	$132,750	88.50%	Table 3.2, Row K
K	Refinancing Offset	($950,139)	0.0	($475,069)	$0	$0	($475,070)	50.00%	Table 4, Row A
L	**Total Request**	**$2,862,999**	**1.0**	**($1,552)**	**$0**	**$0**	**$2,864,551**		Sum of Rows A thru K

Table 2.2
Summary by Initiative
FY 2022-23

Row	Item	Total Funds	FTE	General Fund	Cash Funds	Reappropriated Funds	Federal Funds	FFP Rate	Notes/Calculations
A	FTE Costs								
B	Personal Services	$71,751	1.0	$35,875	$0	$0	$35,876	50.00%	Table 5.3, Row A
C	Health, Life and Dental	$10,042	0.0	$5,021	$0	$0	$5,021	50.00%	Table 5.3, Row B
D	Short-term Disability	$108	0.0	$54	$0	$0	$54	50.00%	Table 5.3, Row C
E	SB 04-257 Amortization Equalization	$3,193	0.0	$1,596	$0	$0	$1,597	50.02%	Table 5.3, Row D
F	SB 06-235 Supplemental Amortization Equalization Disbursement	$3,193	0.0	$1,596	$0	$0	$1,597	50.02%	Table 5.3, Row E
G	Operating Expenses	$950	0.0	$475	$0	$0	$475	50.00%	Table 5.3, Row F
H	Contractor Costs								
I	MMIS	$2,715,661	0.0	$695,209	$0	$0	$2,020,452	74.40%	Table 3.2 Rows J
J	CBMS	$150,000	0.0	$38,400	$0	$0	$111,600	74.40%	Table 3.2, Row K
K	Refinancing Offset	($950,139)	0.0	($475,069)	$0	$0	($475,070)	50.00%	Table 4, Row B
L	**Total Request**	**$2,004,759**	**1.0**	**$303,157**	**$0**	**$0**	**$1,701,602**		Sum of Rows A thru K

Table 2.3
Summary by Initiative
FY 2023-24

Row	Item	Total Funds	FTE	General Fund	Cash Funds	Reappropriated Funds	Federal Funds	FFP Rate	Notes/Calculations
A	FTE Costs								
B	Personal Services	$71,751	1.0	$35,875	$0	$0	$35,876	50.00%	Table 5.3, Row A
C	Health, Life and Dental	$10,042	0.0	$5,021	$0	$0	$5,021	50.00%	Table 5.3, Row B
D	Short-term Disability	$108	0.0	$54	$0	$0	$54	50.00%	Table 5.3, Row C
E	SB 04-257 Amortization Equalization	$3,193	0.0	$1,596	$0	$0	$1,597	50.02%	Table 5.3, Row D
F	SB 06-235 Supplemental Amortization Equalization Disbursement	$3,193	0.0	$1,596	$0	$0	$1,597	50.02%	Table 5.3, Row E
G	Operating Expenses	$950	0.0	$475	$0	$0	$475	50.00%	Table 5.3, Row F
H	Contractor Costs								
I	MMIS	$2,754,776	0.0	$705,223	$0	$0	$2,049,553	74.40%	Table 3.2 Rows J
J	CBMS	$150,000	0.0	$38,400	$0	$0	$111,600	74.40%	Table 3.2, Row K
K	Refinancing Offset	($950,139)	0.0	($475,069)	$0	$0	($475,070)	50.00%	Table 4, Row C
L	**Total Request**	**$2,043,874**	**1.0**	**$313,171**	**$0**	**$0**	**$1,730,703**		Sum of Rows A thru K

Table 3.1: Summary of Contractor Costs by Fund Split							
Row	**Item**	**Total Funds**	**FTE**	**General Fund**	**Cash Funds**	**Reappropriated Funds**	**Federal Funds**	**Notes**
A	FY 2021-22	$3,722,211	0.0	$428,054	$0	$0	$3,294,157	Table 3.2, Row L
B	FY 2022-23	$2,865,661	0.0	$733,609	$0	$0	$2,132,052	Table 3.2, Row L
C	FY 2023-24 & Ongoing	$2,904,776	0.0	$743,623	$0	$0	$2,161,153	Table 3.2, Row L

Table 3.2: Summary of Contractor Costs

Row	Item	FY 2021-22	FY 2022-23	FY 2023-24 & Ongoing	Notes
A	Medicaid Data Hosting Costs	$500,000	$500,000	$500,000	Table 3.4, Row L
B	Third-Party Application Support Costs	$2,057,011	$1,755,005	$1,785,914	Row C + Row D
C	*Staffing Costs*	*$1,332,011*	*$1,030,005*	*$1,060,914*	*Table 3.3, Row CC*
D	*Gateway / Hosting Costs*	*$725,000*	*$725,000*	*$725,000*	*Table 3.4, Row M*
E	Technical Compliance Consultant	$265,200	$273,156	$281,362	Table 3.4, Row D
F	User Authentication Costs	$150,000	$150,000	$150,000	Table 3.4, Row K
G	External Interfacing Costs	$750,000	$187,500	$187,500	Row H + Row G
H	*Implementation*	*$562,500*	*$0*	*$0*	*Table 3.4 Row H*
I	*Ongoing*	*$187,500*	*$187,500*	*$187,500*	*Table 3.4, Row I*
J	**Total Contractor Costs - MMIS**	**$3,572,211**	**$2,715,661**	**$2,754,776**	**Row A + Row C + Row D + Row E + Row H + Row I**
K	**Total Contractor Costs - CBMS**	**$150,000**	**$150,000**	**$150,000**	**Row F**
L	**Total Contractor Costs**	**$3,722,211**	**$2,865,661**	**$2,904,776**	**Row J + Row K**

Table 3.3: Third-Party Application Support Staffing Cost

Row	Item	FY 2021-22	FY 2022-23	FY 2023-24 & Ongoing	Notes
A	Project Manager	1	1	1	Number of staff.
B	Cost per hour	$69.23	$71.31	$73.45	Current rate with 3% cost of living increase
C	Annual Hours	2,080	2,080	2,080	Full time position equals 2,080 hours.
D	**Project Manager Staff Cost**	**$143,998**	**$148,325**	**$152,776**	**Row A * Row B * Row C**
E	Legal / Policy / Contract Management	1	0	0	Number of staff.
F	Cost per hour	$121.15	$124.78	$128.52	Current rate with 3% cost of living increase
G	Hours	2,080	2,080	2,080	Full time position equals 2,080 hours.
H	**Legal / Policy / Contract Management Cost**	**$251,992**	**$0**	**$0**	**Row E * Row F * Row G**
I	Developer	1	1.5	1.5	Number of staff.
J	Cost per hour	$69.23	$71.31	$73.45	Current rate with 3% cost of living increase
K	Hours	2,080	2,080	2,080	Full time position equals 2,080 hours.
L	**Developer Staff Cost**	**$143,998**	**$222,487**	**$229,164**	**Row I * Row J * Row K**
M	Business Analyst / QA Tester	2	1	1	Number of staff.
N	Cost per hour	$73.08	$75.27	$77.53	Current rate with 3% cost of living increase
O	Hours	2,080	2,080	2,080	Full time position equals 2,080 hours.
P	**Business Analyst / QA Tester Staff Cost**	**$304,013**	**$156,562**	**$161,262**	**Row M * Row N * Row O**
Q	Security Analyst	1	1	1	Number of staff.
R	Cost per hour	$96.15	$99.03	$102.00	Current rate with 3% cost of living increase
S	Hours	2,080	2,080	2,080	Full time position equals 2,080 hours.
T	**Security Analyst Staff Cost**	**$199,992**	**$205,982**	**$212,160**	**Row Q * Row R * Row S**
U	System Administrator	1	1	1	Number of staff.
V	Cost per hour	$96.16	$99.04	$102.01	Current rate with 3% cost of living increase
W	Hours	2,080	2,080	2,080	Full time position equals 2,080 hours.
X	**System Administrator Staff Cost**	**$200,013**	**$206,003**	**$212,181**	**Row U * Row V * Row W**
Y	Support Analyst	1	1	1	Number of staff.
Z	Cost per hour	$42.31	$43.58	$44.89	Current rate with 3% cost of living increase
AA	Hours	2,080	2,080	2,080	Full time position equals 2,080 hours.
BB	**Support Staff Cost**	**$88,005**	**$90,646**	**$93,371**	**Row Y * Row Z * Row AA**
CC	**Total Third-Party Application Support Staffing Cost**	**$1,332,011**	**$1,030,005**	**$1,060,914**	**Sum of Rows (D, H, L, P, T, X, BB)**

Row	Item	FY 2021-22	FY 2022-23	FY 2023-24 & Ongoing	Notes
	Table 3.4: Other Contractor Costs				
A	Compliance Consultant	1.5	1.5	1.5	Number of staff.
B	Cost per hour	$85.00	$87.55	$90.18	Current rate with 3% cost of living increase
C	Annual Hours	2,080	2,080	2,080	Full time position equals 2,080 hours.
D	**Compliance Consultant Staff Cost**	**$265,200**	**$273,156**	**$281,362**	**Row A * Row B * Row C**
E	External Interfaces	3	3	3	Estimated Numbers of Plans
F	Implementation Fee	$187,500	$0	$0	One-time fee per plan
G	Ongoing Licensing	$62,500	$62,500	$62,500	Ongoing annual licensing fee per plan
H	External Interfaces Implementation Total	$562,500	$0	$0	Row E * Row F
I	External Interfaces Ongoing Total	$187,500	$187,500	$187,500	Row E * Row G
J	**External Interfaces Total Costs**	**$750,000**	**$187,500**	**$187,500**	**Row E * (Row F + Row G)**
K	**User Authentication Costs**	**$150,000**	**$150,000**	**$150,000**	**Licensing Estimate**
L	**Medicaid Data Hosting Costs**	**$500,000**	**$500,000**	**$500,000**	**Licensing Estimate**
M	**Third-Party Application Support Hosting Costs**	**$725,000**	**$725,000**	**$725,000**	**Licensing Estimate**
N	**Total Other Contractor Costs**	**$2,390,200**	**$1,835,656**	**$1,843,862**	**Row D + Row J + Row K + Row L + Row M**

Table 4.1: Personal Health Record Funding Refinancing
Row	**Item**	**Total Funds**	**FTE**	**General Fund**	**Cash Funds**	**Reappropriated Funds**	**Federal Funds**	**Notes**
A	FY 2021-22	($950,139)	0.0	($475,069)	$0	$0	($475,070)	Funding Currently in HIT Appropriation from FY 2015-16 R-9 "Personal Health Records and Online Health Education"
B	FY 2022-23	($950,139)	0.0	($475,069)	$0	$0	($475,070)	Funding Currently in HIT Appropriation from FY 2015-16 R-9 "Personal Health Records and Online Health Education"
C	FY 2023-24 & Ongoing	($950,139)	0.0	($475,069)	$0	$0	($475,070)	Funding Currently in HIT Appropriation from FY 2015-16 R-9 "Personal Health Records and Online Health Education"

Table 5.1 FTE Calculations

FTE Calculation Assumptions:

Operating Expenses -- Base operating expenses are included per FTE for $500 per year. In addition, for regular FTE, annual telephone costs assume base charges of $450 per year.

Standard Capital Purchases -- Each additional employee necessitates the purchase of a Personal Computer ($900), Office Suite Software ($330), and office furniture ($3,473).

General Fund FTE -- Beginning July 1, 2019, new employees will be paid on a bi-weekly pay schedule; therefore **new full-time General Fund positions are reflected in Year 1 as 0.9615 FTE** to account for the pay-date shift (25/26 weeks of pay). **This applies to personal services costs only; operating costs are not subject to the pay-date shift.**

Expenditure Detail			FY 2021-22		FY 2022-23
Personal Services:					
Classification Title	Biweekly Salary	FTE		FTE	
PROJECT MANAGER I	$2,456	1.0	$61,405	1.0	$63,864
PERA			$6,693		$6,961
AED			$3,070		$3,193
SAED			$3,070		$3,193
Medicare			$890		$926
STD			$104		$108
Health-Life-Dental			$10,042		$10,042
Subtotal Position 1, #.# FTE		**1.0**	**$85,274**	**1.0**	**$88,287**
Subtotal Personal Services		1.0	**$85,274**	1.0	**$88,287**
Operating Expenses:					
		FTE		FTE	
Regular FTE Operating	$500	1.0	$500	1.0	$500
Telephone Expenses	$450	1.0	$450	1.0	$450
PC, One-Time	$1,230	1.0	$1,230	-	
Office Furniture, One-Time	$3,473	1.0	$3,473	-	
Other					
Other					
Other					
Other					
Subtotal Operating Expenses			**$5,653**		**$950**
TOTAL REQUEST		1.0	**$90,927**	1.0	**$89,237**

		Table 5.2 FTE Costs FY 2021-22					
Row	Line Item	Total Funds	FTE	General Fund	Cash Funds	Reappropriated Funds	Federal Funds
A	Personal Services (Salary, PERA & Medicare)	$68,988	1.0	$34,494	$0	$0	$34,494
B	Health, Life and Dental	$10,042	0.0	$5,021	$0	$0	$5,021
C	Short-term Disability	$104	0.0	$52	$0	$0	$52
D	SB 04-257 Amortization Equalization Disbursement	$3,070	0.0	$1,535	$0	$0	$1,535
E	SB 06-235 Supplemental Amortization Equalization Disbursement	$3,070	0.0	$1,535	$0	$0	$1,535
F	Operating Expenses	$5,653	0.0	$2,826	$0	$0	$2,827
G	Total	$90,927	1.0	$45,463	$0	$0	$45,464

		Table 5.3 FTE Costs FY 2022-23 and Ongoing					
Row	Line Item	Total Funds	FTE	General Fund	Cash Funds	Reappropriated Funds	Federal Funds
A	Personal Services (Salary, PERA & Medicare)	$71,751	1.0	$35,875	$0	$0	$35,876
B	Health, Life and Dental	$10,042	0.0	$5,021	$0	$0	$5,021
C	Short-term Disability	$108	0.0	$54	$0	$0	$54
D	SB 04-257 Amortization Equalization Disbursement	$3,193	0.0	$1,596	$0	$0	$1,597
E	SB 06-235 Supplemental Amortization Equalization Disbursement	$3,193	0.0	$1,596	$0	$0	$1,597
F	Operating Expenses	$950	0.0	$475	$0	$0	$475
G	Total	$89,237	1.0	$44,617	$0	$0	$44,620