1. Support Services Report Template

Report Info

Name of the person completing this report: Amber Machamer
Title of the person completing this report: AVP Planning, Institutional Research, Data Warehouse
Supervisor/dean reviewing report: Linda Dalton
Name of second reviewer (if necessary): David Garcia
Service: Pioneer Data Warehouse (PDW)
Division/College: PEMSA

3. Mandated Service

Link to Scoring Rubric

1.1 Please indicate below if any aspect of the service is legally mandated by any of the following and provide the relevant reference.

State Law: PDW feeds data and information to services with state reporting requirements (CEAS credentials.)
Executive Order: PDW supports data needs for PIR reporting on Complete College America and other reporting.
Title 5: PDW supplies data to many services mandated by Title 5
Campus Policy: PDW is the main repository of University academic data. Programs use PDW for enrolment management, contacting students etc.
Any other: PDW supports many campus operational processes and is the main source for academic data (enrollments, admission, Alumni, students, courses). PDW is the main source of data for Institutional Research.
Federal Law: PDW feeds data to services with federally-mandated reporting (e.g., EXCEL, EOP, Accessibility Services)

Provide a brief explanation, if necessary, in < 60 words.

The goal of the PDW is to provide strategic and operational data to CSUEB decision-makers, faculty and staff. It supplies data to many services with mandated reporting requirements and operational systems such as Admissions, CEAS, Accessibility Services and Athletics. PDW is the main source of information for Planning and Institutional Research.

4. Importance of Service

Briefly describe the service in terms of its primary function(s) and purpose(s) using <120 words

The goal of the Pioneer Data Warehouse is to provide strategic and operational data to help CSUEB decision makers, faculty and staff meet long-term goals as well as to serve immediate data needs - in other words, to enhance access to and use of timely data for decision-making and work-flow management. PDW allows staff and faculty to run reports at comparable points-in-time called snapshots. It also “feeds” data to other systems. Currently, the PDW contains student/academic information. The long-term plan is to integrate data from multiple sources including Human Resources/Finance. Development of new data sources as well as an end-user tool has been on hold pending talks with a sister CSU campus about partnering with their Data Warehouse operation.

Link to Scoring Rubric

2.1 Who are the primary receivers of this service? (Please enter the percentage of each user group that is relevant)

Students: 1%
Faculty: 20%
Administrators/staff: 37%
Colleges/departments: 20%
2.2 Please indicate the direct or indirect impact of the service on students for each of the three University Action/Student Impact Areas listed below (for example processing financial aid applications would be direct impact on students while managing utility services would be indirect).

<table>
<thead>
<tr>
<th>Direct Impact on Students</th>
<th>Indirect Impact on Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-college (helping students to enter the system)</td>
<td><img src="%E2%9C%93" alt="" /></td>
</tr>
<tr>
<td>During college (helping students succeed while they are at Cal State East Bay)</td>
<td><img src="%E2%9C%93" alt="" /></td>
</tr>
<tr>
<td>After college (helping students establish meaningful lifework and be socially responsible contributors to society)</td>
<td><img src="%E2%9C%93" alt="" /></td>
</tr>
</tbody>
</table>

Provide a brief narrative (<60 words each) explaining your selection for each area.

<table>
<thead>
<tr>
<th>Evidence submitted to support the chosen selection (&lt;60 words for each)</th>
</tr>
</thead>
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</tr>
</tbody>
</table>

2.3 Applying the four choices presented below, please indicate the consequence of NOT having this service on each of the actions in the left hand column.

<table>
<thead>
<tr>
<th>4 - Service provides evidence of direct impact in more than one area</th>
<th>3 - Service provides evidence of direct impact in one area</th>
<th>2 - Service provides evidence of indirect impact in more than one area</th>
<th>1 - Service provides evidence of indirect impact in one area</th>
</tr>
</thead>
<tbody>
<tr>
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**Link to Scoring Rubric**

2.4 Alignment with Shared Strategic Commitments

How does this service contribute to or align with any of the eight Shared Strategic Commitments (SSC) listed below?

<table>
<thead>
<tr>
<th>SSC</th>
<th>If aligned or contributing, provide a description. (&lt;60 words for each SSC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinforce academic quality through open-minded inquiry, innovative teaching, engaged learning, and distinguished scholarship</td>
<td>PDW provides the data that PIR uses for Program Review and analytic studies. We provide data and information Deans, chairs and the University on course enrollment, majors, for operational and analytical purposes.</td>
</tr>
<tr>
<td>Enhance our inclusive campus, responding to the backgrounds and interests of our diverse community and promoting their academic, professional and personal development</td>
<td>The PDW enables the disaggregated of data by race, ethnicity, gender, age, to track and monitor differences in outcomes.</td>
</tr>
<tr>
<td>Serve students first, by expanding access and enhancing each student's educational experience and prospects for success as a graduate and life-long learner</td>
<td>PDW supplies data to services that support access and student success (admissions, Orientation, Raw, Academic Services, Alumni Association) as well as the SSAC committee.</td>
</tr>
<tr>
<td>Foster a vibrant community through enriched student services and student life that support student engagement and learning</td>
<td>PDW provides data to services that enrich student life (admissions, Orientation, RAW, Alumni Association)</td>
</tr>
<tr>
<td>Contribute to a sustainable planet through our academic programs, university operations, and individual behavior</td>
<td>PDW supplies data for facilities and parking planning.</td>
</tr>
<tr>
<td>Continuously improve our efficiency, transparency, and accountability while practicing mutual respect, responsiveness, and collaboration across the University</td>
<td>PDW provides the data that is used for continuous improvement and monitoring of targets.</td>
</tr>
<tr>
<td>Support the civic, cultural, and economic life of all communities in the regions we serve through partnerships that promote education and social responsibility</td>
<td>PDW supports vitality of our community by enabling the reporting for grants such as Promise Neighborhoods.</td>
</tr>
<tr>
<td>Demonstrate our continuing record of leadership and innovation in higher education, focused on 21st century skills, including science, technology, engineering, and mathematics (STEM)</td>
<td>PDW supports the University by providing data by major/program to track STEM majors. PDW also enables the reporting of data for STEM grants.</td>
</tr>
</tbody>
</table>

**Link to Scoring Rubric**

2.5 How might the demand for this service change over the next five years? (Please choose one category below).

Likely to increase

Provide a rationale for your choice (assumptions, impact of new policy, etc.) in <120 words.

The demand for data and information as well as the number of systems that need to be “fed” data will increase. The need and
importance for reliable and integrated data systems (Academic, HR, Finance, space etc) has been highlighted by the difficulty of getting data for the Planning for Distinction process. Had the PDW been fully implemented the data would have been available and more easily disseminated to the writers and the task forces. As CSUEB develops processes and uses data to inform decisions, it is imperative that the data is integrated and easily accessible.

5. Quality of Service

Link to Scoring Rubric

3.1 Do you assess the quality of the service you provide?

Yes

If “Yes”, what benchmarks, best practices or measures of success, either internal or external, do you use to measure service quality (e.g., timeliness, accuracy, adequacy, meeting deadlines, satisfactory completion of assignment, etc.)? Please describe in <120 words. If no, please explain.

PDW has developed a customer survey for users of the warehouse. We developed reporting capabilities to track users, report usage, run times etc. Additionally, PDW uses the formal Request For Change Process (RFC) as overseen by IT when making any changes to production servers after successful implementation on the test server. The implementation of the PDW Steering Committee also improves the quality of the PDW by getting broad-based input from stakeholders.

Link to Scoring Rubric

3.2 During the last three years, have you adopted any measures to improve the quality of this service? Please describe in <120 words.

Data warehousing had a few false starts prior to 2011. Since being transferred to Planning and Institutional Research, two years ago, we have made steady progress on report development and end-user-driven customizations. We added a Lead position, temporary report writer to the existing developer position (transferred from IT) and implemented PDW Steering Committee. Transferring PDW to PEMSA has improved the quality of reports since we work closely with end users in PEMSA and academic services. We are eager to add new data sources (HR and Finance) but where on hold for over a year pending talks with a sister CSU campus. However, we are in full development of student data and have added sources such as housing, ERSS and imaging.

Link to Scoring Rubric

3.3 What idea(s) do you have for improving the quality of this service within existing resources (e.g. development of benchmarks, surveys, feedback, etc.)? Please describe your plan(s) in <120 words.

Create more reports from our current data source (PeopleSoft Student). Add new sources such as APDB, Testing Office, some HR data (from the L05 report). Create strategic communications plan to inform campus community about PDW. Push training out instead of waiting for folks to come to us (go to committees, one-on-one training). Redesign report descriptions and web site for readability in non-jargon terms. Add Training video to web site. Implementing internal review plan; set and monitor goals. Expedited RFC process would improve time it takes to meet end-user needs. Continue gathering end-user requirements and building customizations.

Link to Scoring Rubric

3.4 What ideas do you have for improving the quality of the service if additional resources were provided. Please describe your idea(s) in <120 words.

With new resources we could embark on a complete-build out of PDW. Implement new modules HR/Finance/financial aid. Implement enhanced reporting tool with dashboards and analytical capabilities. Add new sources of data such as space, testing Office, SCAA. More servers, programmers and report writers would be required to build out PDW. With investment we could have a
fully integrated Data Warehouse that serves the needs of all campus constituents.

Link to Scoring Rubric

3.5 Do you use any formal or informal process to assess the level of satisfaction of the service users?

Yes

If yes, describe the process and most recent results in <120 words. If no, please explain.

PDW has developed a customer survey for users of the warehouse which was just recently implemented so no results are available as yet. Using PFD process as a benchmark, we will develop an internal performance review model. We will set goals and track them using "usage" statistics, customer service data, new report development, and an employee engagement survey. We plan to apply google analytics to the web site. Additionally, we developed reporting capabilities to track users, report usage, run times etc last Fall.

Link to Scoring Rubric

3.6 The university recently conducted a customer satisfaction survey for some services (results for this service are attached, if applicable). Do you have any comment or response to the results? Please describe in <120 words.

PDW has low usage among faculty/staff (with staff usage slightly higher than faculty). While rated lower than the University average on "Importance" by faculty/staff PDW is still in the Important range. Staff rate the PDW higher in "Importance" than faculty. Faculty rate "Quality" lower than the PEMSA/University averages. Staff rate "Quality" only slightly lower than the PEMSA/University averages. Given the newness of the PDW, the limited data sources and an end user tool that has many limitations, these ratings are not unexpected. We will use these to benchmarks for future improvement. High ratings on "Importance" and low on "Quality" is possible evidence that PDW needs further investment to achieve higher Usage and Quality ratings.

Link to Scoring Rubric

3.7 Do you have any formal or informal guidelines for personnel in your department regarding how to treat/interact with receivers of this service?

No

If yes, please describe in <120 words. If no, please explain

Not at this time. PIR is piloting a formal process, we will use PFD as a baseline and borrow from PIR's formal customer service document to develop processes specific to PDW services and customers.

Link to Scoring Rubric

3.8 Does your service have annual goals (targets) of achievement regarding the quality of the service provided?

No

If yes, describe the annual quality goals (targets) and indicate if the service achieved those goals (targets). Please provide evidence, if possible, in <120 words. If no, please explain.

In development. We will be using the PFD process as a baseline. We plan to have annual goals that are monitored via customer surveys, employee surveys, web-site tracking, usage reports, as well as some quantitative measures of volume and on-time delivery. Our ability to add new data sources and a new end user tool (which would be the biggest improvements of quality) has been on hold pending talks with a sister campus exploring the possibilities for synergy. Now that the effort has failed, we are looking at other opportunities for coordinating efforts with other CSU campuses.
3.9 Does your service have annual goals (targets) of achievement regarding the quantity of service provided?

Yes

If yes, describe the annual quantity goals (targets) and indicate if the service achieved those goals (targets). Please provide evidence, if possible, in <120 words. If no, please explain.

In development. Our ability to add new data sources and a new end user tool (which would be the biggest improvements in quantity) has on hold pending talks with a sister campus exploring the possibilities for synergy.

6. Efficiency of Service (cost effectiveness)

4.1 Using the spreadsheet provided for all employees in your department, please distribute salaries of individuals across all services provided to reach an educated or reasonable estimate of the cost of providing the service.

262000

Attach your allocated spreadsheet here.

PIR Allocations.xlsx

4.2 Using the spreadsheet provided, please distribute your department's annual operating expenses across all services provided to reach an educated or reasonable estimate of the cost of providing the service.

4787

4.3 Using the spreadsheet provided, please distribute the square footage of work space across all services provided to reach an educated or reasonable estimate of the use of this resource.

267

4.4 During the last three years, have you adopted any measures to improve the efficiency (cost effectiveness) of providing this service (e.g. reducing salary costs, operating expenses or use of space, or increased output without increasing cost. Etc.)?

Yes

If yes, please describe the measures in <120 words. If this is a new service introduced over the past three years, please indicate. If no, please explain.

There is a lot of demand for an integrated warehouse. PDW is the number one priority of Cabinet’s Projects Requiring IT support. We have been using a very cost-effective tool (Blackboard Analytics) which delivers cost-effective ETL without the need to build everything in-house and requires very little support from IT in terms of personnel. We have consolidated and replaced legacy systems that require costly licenses and extra personal to maintain. Most importantly, PDW provides efficiencies for other departments. For example, we created the "Freshman Cluster Calculator" that helps GE, CLASS, and COS plan the number of
sections needed to accommodate incoming freshmen, easing the need for last minute additions or course cancellations.

Link to Scoring Rubric

4.5 What idea(s) do you have for improving the efficiency (cost effectiveness) of this service within existing resources (e.g. restructuring, merging, outsourcing, ways to cut costs, technology, etc.)? Please describe those ideas in <120 words.

Continue migration off legacy-systems. Increase number of reports. Enhance use of existing report tool to include graphics. Coordinate with PIR to create canned reports to free PIR personnel. Expedite RFC process to make changes more timely. Explore consolidating DBA role into existing PDW staff responsibilities. Improvements to web-site and report descriptions. PDW can enhance efficiency in other services. For example, we developed reporting for Athletics certification (NCAA required) that improves the process for both Registrar’s Office and Athletics. The Registrations would manually print all transcripts then Athletics would hand-audit. Now Athletics personnel can use PDW to generate reports with tags (academic probation/course applicability etc). They can drill down, export, and get contact information for students.

Link to Scoring Rubric

4.6 What idea(s) do you have for improving the efficiency (cost effectiveness) of the service if additional resources were provided. Please describe your idea(s) in <120 words.

Cloud reporting to eliminate need for local servers and personnel to maintain servers. Include HR Finance, financial aid and space into data sources to integrate all data reporting and eliminate redundant and siloed data sources. Continue to find inefficient processes and use PDW to automate them.

Link to Scoring Rubric

4.7 Do you have any plan(s) to improve the efficiency (cost effectiveness) of this service in the next 1-2 years (e.g. reducing costs, increasing productivity, etc.)?

Yes

If yes, please specify whether these plan(s) involve reducing salary costs, operating expenses and/or use of space. Please describe your plan(s) in <120 words. If no, please explain.

In addition to what is listed in prior responses we can collaborate with other campuses using similar tools. There are at least 4 other CSU campuses using BlackBaord Analytics with whom we could partner. We will continue to find and apply PDW resources to inefficient processes like we did with Athletics certification.

Link to Scoring Rubric

4.8 Please describe the estimated output for this service for fiscal year 2011-12, quantify if possible (e.g. volume, service tickets resolved, people serviced, appointments, etc.) in <120 words.

PDW work fits into 8 categorizes (excluding professional development. 1)REPORT WRITING: Since 2011 we have written a total of 145 reports (86 PEMSA operational/ 77 Campus-related-enrollment reports) Plus the usage statistics reports. 2)DATA EXTRACTS: 7 automated data extracts and 2 data extracts for federal reporting. 3)TRAINING/OUTREACH: We have conducted 12-15 training sessions. 4)INTEGRATING NEW DATA SOURCES: ERSS, Housing, financial aid. 5)CUSTOMIZATION BASELINE ETL: At least 9 instances UPGRADES/MAINTENANCE: major upgrade from Peoplesoft and BbAnaltics 4.0. Upgrades of Server, memory increase, continual work to troubleshoot connectivity issues. AD HOCS: Provided at least 120 reports written in 2012-2013. 8)TECHNICAL CONSULTING: Ongoing work related to PIR, RFC process, decommissioning legacy servers, review various tools, coordinating with vendors (Blumen, Symplicity).

7. Other
5.1 Are you aware of services similar to this one that are being provided by another department at CSU East Bay?

No

If yes, please provide a list of those departments. How are the services described here similar or different? Please describe in < 60 words.

We have legacy systems that are siloed and scheduled for decommissioning. There is the CSU Finance Data Warehouse that was created by the CSU Chancellor’s office but it is not local nor is it connected to any other data sources.

Link to Scoring Rubric

5.2 Is there anything unique or distinctive about your service? Please describe what is unique or distinctive in <120 words.

There are not a lot of completely integrated Data Warehouses in the CSU system and none with the broad-based and transparent governance that the PDW has. PDW has both operational data as well as enables analytic capabilities. Adding HR, Finance, and Financial Aid (as has been planned and is currently on hold) would place CSUEB near the top of the CSU system in terms of Data Warehousing. Having integrated and accessible data and analytics is a key ingredient in making CSUEB the type of institution that uses data and information openly and strategically. Additionally, PDW can create efficiencies for other processes and services.

Link to Scoring Rubric

5.3 Are there any additional things about this service that you would like the task group to know? Please describe/explain in <250 words.

Thank you for your time and attention reading about the PDW. We are a team of professionals eager to expand the PDW and serve the CSUEB community. We know that there is broad and growing demand for accurate, accessible and intelligent data warehousing and we stand ready to not only meet those demands but exceed expectations.

NOTE: Toward the end of the summer, the sister campus decided not to explore a partnership with East Bay any further. Thus, East Bay is now preparing to move ahead with our university's own data warehouse plan.

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