History Department – Program Learning Outcome #1
Aligns with Written Communication Core Competency
2016-2017

Learning Outcome:

Complete a substantial historical project autonomously.

Outcome Measure:

Research Paper in HIS 470: Senior Seminar in History (every fall beginning with fall 2014)

Criteria for Success:

Minimum average of 2.75 (out of 4) for each criteria of rubric

Aligned with DQP Learning Areas (highlight one or more):

1. Specialized Knowledge
2. Broad and Integrative Knowledge
3. Intellectual Skills/Core Competencies
4. Applied and Collaborative Learning
5. Civic and Global Learning

Longitudinal Data:

The Longitudinal Data begins in 2013-2014, because we wrote new Program Learning Outcomes in 2013 to align with the Core Competencies. There is a different set of data to match different learning outcomes for 2011-2012 and 2012-2013.

Written Communication Value Rubric - Average Student Scores:

Course	Semester	N	Context and Purpose	Content Development	Genre and Disciplinary Conventions	Sources and Evidence	Control of Syntax and Mechanics	Average Score
HIS 470	Fall 2013	12	3.13	2.83	3.04	2.79	3.08	2.97
HIS 470	Fall 2014	4	3.50	3.25	3.00	3.75	3.00	3.30
HIS 470	Fall 2015	8	3.63	3.25	3.25	3.13	3.63	3.38
HIS 470	Fall 2016	10	3.40	3.10	3.20	3.20	3.10	3.20

Conclusions Drawn from Data:

It's hard to base too much off the results from only 4 students. However, we did see a general improvement in 2014-2015, and hope that will continue to be the case.

Changes to be Made Based on Data:

We began a new Senior Seminar class in the fall of 2014, and part of that is an intensive focus on improving a research paper (directly related to three of our outcomes and core competencies). We therefore expect to see an improvement in this area beginning with fall 2014 and continuing in the future.

Rubric Used

WRITTEN COMMUNICATION VALUE RUBRIC

for more information, please contact value@aacu.org

Association of American Colleges and Universities

Definition: Written communication is the development and expression of ideas in writing. Written communication involves learning to work in many genres and styles. It can involve working with many different writing technologies, and mixing texts, data, and images. Written communication abilities develop through iterative experiences across the curriculum.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	**Milestones** 3	2	**Benchmark** 1
Context of and Purpose for Writing *Includes considerations of audience, purpose, and the circumstances surrounding the writing task(s).*	Demonstrates a thorough understanding of context, audience, and purpose that is responsive to the assigned task(s) and focuses all elements of the work.	Demonstrates adequate consideration of context, audience, and purpose and a clear focus on the assigned task(s) (e.g., the task aligns with audience, purpose, and context).	Demonstrates awareness of context, audience, purpose, and to the assigned tasks(s) (e.g., begins to show awareness of audience's perceptions and assumptions).	Demonstrates minimal attention to context, audience, purpose, and to the assigned tasks(s) (e.g., expectation of instructor or self as audience).
Content Development	Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and shaping the whole work.	Uses appropriate, relevant, and compelling content to explore ideas within the context of the discipline and shape the whole work.	Uses appropriate and relevant content to develop and explore ideas through most of the work.	Uses appropriate and relevant content to develop simple ideas in some parts of the work.
Genre and Disciplinary Conventions *Formal and informal rules inherent in the expectations for writing in particular forms and/or academic fields (please see glossary).*	Demonstrates detailed attention to and successful execution of a wide range of conventions particular to a specific discipline and/or writing task (s) including organization, content, presentation, formatting, and stylistic choices	Demonstrates consistent use of important conventions particular to a specific discipline and/or writing task(s), including organization, content, presentation, and stylistic choices	Follows expectations appropriate to a specific discipline and/or writing task(s) for basic organization, content, and presentation	Attempts to use a consistent system for basic organization and presentation.
Sources and Evidence	Demonstrates skillful use of high-quality, credible, relevant sources to develop ideas that are appropriate for the discipline and genre of the writing	Demonstrates consistent use of credible, relevant sources to support ideas that are situated within the discipline and genre of the writing.	Demonstrates an attempt to use credible and/or relevant sources to support ideas that are appropriate for the discipline and genre of the writing.	Demonstrates an attempt to use sources to support ideas in the writing.
Control of Syntax and Mechanics	Uses graceful language that skillfully communicates meaning to readers with clarity and fluency, and is virtually error-free.	Uses straightforward language that generally conveys meaning to readers. The language in the portfolio has few errors.	Uses language that generally conveys meaning to readers with clarity, although writing may include some errors.	Uses language that sometimes impedes meaning because of errors in usage.

History Department – Program Learning Outcome #2
Aligns with Critical Thinking Core Competency
2016-2017

Learning Outcome:

Demonstrate the relationship between primary and secondary materials by assessing a historian's work and recognizing the evidence used to construct that historical argument.

Outcome Measure:

Research Paper in HIS 470: Senior Seminar in History (every fall beginning with fall 2014)

Criteria for Success:

Minimum average of 2.75 (out of 4) for each criteria of rubric

Aligned with DQP Learning Areas (highlight one or more):

1. Specialized Knowledge
2. Broad and Integrative Knowledge
3. Intellectual Skills/Core Competencies
4. Applied and Collaborative Learning
5. Civic and Global Learning

Longitudinal Data:

The Longitudinal Data begins in 2013-2014, because we wrote new Program Learning Outcomes in 2013 to align with the Core Competencies. There is a different set of data to match different learning outcomes for 2011-2012 and 2012-2013.

Critical Thinking Value Rubric - Average Student Scores:

Course	Semester	N	Explanation of Issues	Evidence	Influence of Context & Assumptions	Student Position	Conclusions & Related Outcomes	Average Score
HIS 470	Fall 2013	12	3.26	2.83	3.00	2.83	3.08	3.00
HIS 470	Fall 2014	4	3.50	3.50	2.75	2.75	2.75	3.05
HIS 470	Fall 2015	8	3.63	3.25	3.13	3.38	3.38	3.35
HIS 470	Fall 2016	10	3.30	3.00	2.80	2.90	3.00	3.00

Conclusions Drawn from Data:

We saw a significant improvement in most areas, although it is hard to say exactly what caused that given our small sample sizes. We'll continue to emphasize this part of their research papers in the hopes of continuing to see strong results.

Changes to be Made Based on Data:

We need to continue to work on helping the students make the strongest and most well-supported arguments possible in their papers.

Rubric Used:

AAC&U Critical Thinking Value Rubric

Rubric Used

CRITICAL THINKING VALUE RUBRIC

for more information, please contact value@aacu.org

Association of American Colleges and Universities

Definition: Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion. *Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.*

	Capstone (4)	Milestones (3)	Milestones (2)	Benchmark (1)
Explanation of issues	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/problem to be considered critically is stated, described, and clarified so that understanding is not seriously impeded by omissions.	Issue/problem to be considered critically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown.	Issue/problem to be considered critically is stated without clarification or description.
Evidence *Selecting and using information to investigate a point of view or conclusion*	Information is taken from source(s) with enough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning.	Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fact, without question.
Influence of context and assumptions	Thoroughly (systematically and methodically) analyzes own and others' assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.
Student's position (perspective, thesis/hypothesis)	Specific position (perspective, thesis/hypothesis) is imaginative, taking into account the complexities of an issue. Limits of position (perspective, thesis/hypothesis) are acknowledged. Others' points of view are synthesized within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue.	Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.
Conclusions and related outcomes (implications and consequences)	Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to some of the information discussed; related outcomes (consequences and implications) are oversimplified.

History Department – Program Learning Outcome #3
Aligns with Oral Communication Core Competency
2016-2017

Learning Outcome:

Present and analyze, in an oral presentation, different perspectives on an event from the past.

Outcome Measure:

Oral Presentation in HIS 470: Senior Seminar in History (every fall beginning with fall 2014)

Criteria for Success:

Minimum average of 2.75 (out of 4) for each criteria of rubric

Aligned with DQP Learning Areas (highlight one or more):

1. Specialized Knowledge
2. Broad and Integrative Knowledge
3. Intellectual Skills/Core Competencies
4. Applied and Collaborative Learning
5. Civic and Global Learning

Longitudinal Data:

The Longitudinal Data begins in 2013-2014, because we wrote new Program Learning Outcomes in 2013 to align with the Core Competencies. There is a different set of data to match different learning outcomes for 2011-2012 and 2012-2013.

Oral Communication Value Rubric - Average Student Scores:

Course	Semester	N	Organization	Language	Delivery	Supporting Material	Central Message	Average Score
HIS 470	Fall 2013	10	3.70	3.20	3.30	3.40	3.30	3.38
HIS 470	Fall 2014	4	3.25	3.00	3.25	3.50	3.50	3.30
HIS 470	Fall 2015	8	3.75	3.50	3.13	3.50	3.50	3.48
HIS 470	Fall 2016	10	3.70	3.20	3.20	3.40	3.30	3.36

Conclusions Drawn from Data:

Our students are exceeding the minimum average for this outcome.

Changes to be Made Based on Data:

Our students generally do very well with formal oral presentations, and that is probably because they do them in almost every class, as well as at professional conferences. This is one of our strengths, and we will continue to emphasize it.

Rubric Used:

AAC&U Oral Communication Value Rubric

Rubric Used

ORAL COMMUNICATION VALUE RUBRIC

for more information, please contact value@aacu.org

Association of American Colleges and Universities

Definition: Oral communication is a prepared, purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors. *Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.*

	Capstone (4)	Milestones (3)	Milestones (3)	Benchmark (1)
Organization	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable and is skillful and makes the content of the presentation cohesive.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is intermittently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is not observable within the presentation.
Language	Language choices are imaginative, memorable, and compelling, and enhance the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are thoughtful and generally support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are mundane and commonplace and partially support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are unclear and minimally support the effectiveness of the presentation. Language in presentation is not appropriate to audience.
Delivery	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation compelling, and speaker appears polished and confident.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation interesting, and speaker appears comfortable.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation understandable, and speaker appears tentative.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) detract from the understandability of the presentation, and speaker appears uncomfortable.
Supporting Material	A variety of types of supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that significantly supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that generally supports the presentation or establishes the presenter's credibility/authority on the topic.	Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that partially supports the presentation or establishes the presenter's credibility/authority on the topic.	Insufficient supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make reference to information or analysis that minimally supports the presentation or establishes the presenter's credibility/authority on the topic.
Central Message	Central message is compelling (precisely stated, appropriately repeated, memorable, and strongly supported.)	Central message is clear and consistent with the supporting material.	Central message is basically understandable but is not often repeated and is not memorable.	Central message can be deduced, but is not explicitly stated in the presentation.

History Department – Program Learning Outcome #5
Aligns with Information Literacy Core Competency
2016-2017

Learning Outcome:

Find appropriate materials online, in a library or in the community and know how to cite them.

Outcome Measure:

Research paper in HIS 470: Senior Seminar in History (every fall beginning with fall 2014)

Criteria for Success:

Minimum average of 2.75 (out of 4) for each criteria of rubric

Aligned with DQP Learning Areas (highlight one or more):

1. Specialized Knowledge
2. Broad and Integrative Knowledge
3. Intellectual Skills/Core Competencies
4. Applied and Collaborative Learning
5. Civic and Global Learning

Longitudinal Data:

The Longitudinal Data begins in 2013-2014, because we wrote new Program Learning Outcomes in 2013 to align with the Core Competencies. There is a different set of data to match different learning outcomes for 2011-2012 and 2012-2013.

Information Literacy Value Rubric - Average Student Scores:

Course	Semester	N	Determine Extent of Information Needed	Access Needed Information	Evaluate Information & Sources	Use Information for a Purpose	Access/Use Ethically & Legally	Average
HIS 470	Fall 2013	12	2.96	2.91	2.77	3.08	2.87	2.92
HIS 470	Fall 2014	4	3.25	3.75	3.50	3.25	4.00	3.55
HIS 470	Fall 2015	8	3.75	3.13	3.13	3.63	3.38	3.40
HIS 470	Fall 2016	10	3.40	2.90	2.80	2.80	3.20	3.02

Conclusions Drawn from Data:

We had twice as many students in Fall 2015, but still a small sample size (8 students). The results are fairly consistent with the preceding year, and we are pleased that the scores are strong overall.

Changes to be Made Based on Data:

We began a new Senior Seminar class in the fall of 2014, and part of that is an intensive focus on improving a research paper (directly related to three of our outcomes and core competencies). We therefore expect to see an improvement in this area beginning with fall 2014 and continuing in the future.

Rubric Used:

AAC&U Information Literacy Value Rubric

Rubric Used

INFORMATION LITERACY VALUE RUBRIC

for more information, please contact value@aacu.org

Definition: The ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively and responsibly use and share that information for the problem at hand. - The National Forum on Information Literacy (*Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.)*

	Capstone (4)	Milestones (3)	Milestones (3)	Benchmark (1)
Determine the Extent of Information Needed	Effectively defines the scope of the research question or thesis. Effectively determines key concepts. Types of information (sources) selected directly relate to concepts or answer research question.	Defines the scope of the research question or thesis completely. Can determine key concepts. Types of information (sources) selected relate to concepts or answer research question.	Defines the scope of the research question or thesis incompletely (parts are missing, remains too broad or too narrow, etc.). Can determine key concepts. Types of information (sources) selected partially relate to concepts or answer research question.	Has difficulty defining the scope of the research question or thesis. Has difficulty determining key concepts. Types of information (sources) selected do not relate to concepts or answer research question.
Access the Needed Information	Accesses information using effective, well-designed search strategies and most appropriate information sources.	Accesses information using variety of search strategies and some relevant information sources. Demonstrates ability to refine search.	Accesses information using simple search strategies, retrieves information from limited and similar sources.	Accesses information randomly, retrieves information that lacks relevance and quality.
Evaluate Information and its Sources Critically* *Corrected Dimension 3: Evaluate Information and its Sources Critically in July 2013	Chooses a variety of information sources appropriate to the scope and discipline of the research question. Selects sources after considering the importance (to the researched topic) of the multiple criteria used (such as relevance to the research question, currency, authority, audience, and bias or point of view.)	Chooses a variety of information sources appropriate to the scope and discipline of the research question. Selects sources using multiple criteria (such as relevance to the research question, currency, and authority.)	Chooses a variety of information sources. Selects sources using basic criteria (such as relevance to the research question and currency.)	Chooses a few information sources. Selects sources using limited criteria (such as relevance to the research question.)
Use Information Effectively to Accomplish a Specific Purpose	Communicates, organizes and synthesizes information from sources to fully achieve a specific purpose, with clarity and depth	Communicates, organizes and synthesizes information from sources. Intended purpose is achieved.	Communicates and organizes information from sources. The information is not yet synthesized, so the intended purpose is not fully achieved.	Communicates information from sources. The information is fragmented and/or used inappropriately (misquoted, taken out of context, or incorrectly paraphrased, etc.), so the intended purpose is not achieved.
Access and Use Information Ethically and Legally	Students use correctly all of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrate a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.	Students use correctly three of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.	Students use correctly two of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.	Students use correctly one of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.

History Department – Program Learning Outcome #4
Aligns with Quantitative Literacy Core Competency
2016-2017

Learning Outcome:

Have an academic transcript that shows courses with content that ranges over time, space, culture, and qualitative and quantitative historical methods.

Outcome Measure:

Quantitative Analysis question on Midterm Exam in HIS 470: Senior Seminar in History (every fall beginning with fall 2014)

Criteria for Success:

Minimum average of 2.75 (out of 4) for each criteria of rubric

Aligned with DQP Learning Areas (highlight one or more):

1. Specialized Knowledge
2. Broad and Integrative Knowledge
3. Intellectual Skills/Core Competencies
4. Applied and Collaborative Learning
5. Civic and Global Learning

Longitudinal Data:

The Longitudinal Data begins in 2013-2014, because we wrote new Program Learning Outcomes in 2013 to align with the Core Competencies. There is a different set of data to match different learning outcomes for 2011-2012 and 2012-2013.

Quantitative Reasoning Value Rubric - Average Student Scores:

Course	Semester	N	Interpretation	Representation	Calculation	Application	Assumptions	Communication
HIS 470	Fall 2013	9	2.89	NA	NA	2.67	2.40	2.78
HIS 470	Fall 2014	4	3.25			3.25	3.25	NA
HIS 470	Fall 2015		NA	NA	NA	NA	NA	NA
HIS 470	Fall 2016	10	2.50	2.20	2.50	2.90	3.10	3.10

Conclusions Drawn from Data:

We did not assess this in Fall 2015 because we have decided to rewrite this PLO to better reflect our program.

Changes to be Made Based on Data:

We are still trying to find a place in our curriculum to specifically train the students in this area, and also find the right tools for assessing them on this. This is not as self-evidently a part of the history program as the other core competencies

Rubric Used:

AAC&U Quantitative Literacy Value Rubric

Rubric Used

QUANTITATIVE LITERACY VALUE RUBRIC

for more information, please contact value@aacu.org

Association of American Colleges and Universities

Definition: Quantitative Literacy (QL) – also known as Numeracy or Quantitative Reasoning (QR) – is a "habit of mind," competency, and comfort in working with numerical data. Individuals with strong QL skills possess the ability to reason and solve quantitative problems from a wide array of authentic contexts and everyday life situations. They understand and can create sophisticated arguments supported by quantitative evidence and they can clearly communicate those arguments in a variety of formats (using words, tables, graphs, mathematical equations, etc., as appropriate). *Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.*

	Capstone (4)	Milestones (3)	Milestones (2)	Benchmark (1)
Interpretation *Ability to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words)*	Provides accurate explanations of information presented in mathematical forms. Makes appropriate inferences based on that information. *For example, accurately explains the trend data shown in a graph and makes reasonable predictions regarding what the data suggest about future events.*	Provides accurate explanations of information presented in mathematical forms. *For instance, accurately explains the trend data shown in a graph.*	Provides somewhat accurate explanations of information presented in mathematical forms, but occasionally makes minor errors related to computations or units. *For instance, accurately explains trend data shown in a graph, but may miscalculate the slope of the trend line.*	Attempts to explain information presented in mathematical forms, but draws incorrect conclusions about what the information means. *For example, attempts to explain the trend data shown in a graph, but will frequently misinterpret the nature of that trend, perhaps by confusing positive and negative trends.*
Representation *Ability to convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words)*	Skillfully converts relevant information into an insightful mathematical portrayal in a way that contributes to a further or deeper understanding.	Competently converts relevant information into an appropriate and desired mathematical portrayal.	Completes conversion of information but resulting mathematical portrayal is only partially appropriate or accurate.	Completes conversion of information but resulting mathematical portrayal is inappropriate or inaccurate.
Calculation	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem. Calculations are also presented elegantly (clearly, concisely, etc.)	Calculations attempted are essentially all successful and sufficiently comprehensive to solve the problem.	Calculations attempted are either unsuccessful or represent only a portion of the calculations required to comprehensively solve the problem.	Calculations are attempted but are both unsuccessful and are not comprehensive.
Application / Analysis *Ability to make judgments and draw appropriate conclusions based on the quantitative analysis of data, while recognizing the limits of this analysis*	Uses the quantitative analysis of data as the basis for deep and thoughtful judgments, drawing insightful, carefully qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for competent judgments, drawing reasonable and appropriately qualified conclusions from this work.	Uses the quantitative analysis of data as the basis for workmanlike (without inspiration or nuance, ordinary) judgments, drawing plausible conclusions from this work.	Uses the quantitative analysis of data as the basis for tentative, basic judgments, although is hesitant or uncertain about drawing conclusions from this work.
Assumptions *Ability to make and evaluate important assumptions in estimation, modeling, and data analysis*	Explicitly describes assumptions and provides compelling rationale for why each assumption is appropriate. Shows awareness that confidence in final conclusions is limited by the accuracy of the assumptions.	Explicitly describes assumptions and provides compelling rationale for why assumptions are appropriate.	Explicitly describes assumptions.	Attempts to describe assumptions.
Communication *Expressing quantitative evidence in support of the argument or purpose of the work (in terms of what evidence is used and how it is formatted, presented, and contextualized)*	Uses quantitative information in connection with the argument or purpose of the work, presents it in an effective format, and explicates it with consistently high quality.	Uses quantitative information in connection with the argument or purpose of the work, though data may be presented in a less than completely effective format or some parts of the explication may be uneven.	Uses quantitative information, but does not effectively connect it to the argument or purpose of the work.	Presents an argument for which quantitative evidence is pertinent, but does not provide adequate explicit numerical support. (May use quasi-quantitative words such as "many," "few," "increasing," "small," and the like in place of actual quantities.)