1. Project Short Title

<table>
<thead>
<tr>
<th>5-8 Word Project Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distributed Econometrics Lab</td>
</tr>
</tbody>
</table>

2. Total Requested Amounts:

<table>
<thead>
<tr>
<th>Fiscal Year 2002</th>
<th>Years Following Fiscal Year 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>$25,920</td>
<td>$10,000</td>
</tr>
</tbody>
</table>

3. Executive Summary

<table>
<thead>
<tr>
<th>Project Description (Three or four sentences)</th>
</tr>
</thead>
<tbody>
<tr>
<td>By upgrading an existing server the Distributed Econometrics Lab will provide the infrastructure for students in statistics, quantitative and methodology courses, both undergraduate and graduate level, to access a centralized server using a familiar Windows environment. This server will contain current data and statistical packages to facilitate both out-of-class exercises (for undergraduate students) and the completion of degree requirements (for graduate level students). By coordinating with econometric instructors this server can provide real-world experience and expand the students’ understanding of quantitative analysis in actual application.</td>
</tr>
</tbody>
</table>

4. Project Description

_The creation of the Distributed Econometrics Lab would consist of upgrading an existing server located in the Fiscal Research Program (a division of the Andrew Young School of Policy Studies) to include faster processors, additional disk capacity and a graduate research assistant for the day-to-day administration of the data warehoused for the purpose of facilitating on and off-campus graphical access (via Windows Terminal Server) to data and statistical packages. Specifically, this would entail the purchase of massive storage device and four server quality processors and multi-user licenses for statistical packages. This server will be used in instruction and out-of-classroom assignments for undergraduates and graduates enrolled in statistics, econometrics, and quantitative methodology classes or classes that require research papers involving statistics or econometrics. This provides the advantage of centralized administration of statistical software and data materials used in assignments. Additionally, this server will be used by graduate students who need remote access to large data sets and specialized econometric packages in order to complete thesis or dissertation requirements. This would facilitate completion of degree requirements by providing a clearinghouse for data and the applicable tools._

5. Relevance to Regents Guidelines

1. This project directly addresses items [1], [3], [4] and [5] in the Regents Technology Fee Guidelines.
   a. [1] The primary reason for the proposal is to increase student understanding of statistics and econometrics, the central tools used in policy analysis.
   b. [3] This proposal will provide a special purpose lab that may be accessed anywhere, on or off campus, given an Internet connection. And, since the data will be remotely stored and analyzed, bandwidth requirements will not exceed the current network infrastructure.
c. [4] The statistical packages that will be used are the same as those used in class and by researchers. This will provide a training ground for graduate and undergraduates interested in working in research.

d. [5] This proposal uses a server that was acquired through a grant intended to further research on issues of welfare and employment. By increasing its capacity we can leverage the existing technology to provide a more meaningful education experience for students in the fields of economics and policy.

6. Relevance to Strategic Plan(s)

Part of the focus of the Fiscal Research Program is education, and this project will enable students to better understand policy issues through enhanced access to current information and resources used to critically evaluate economic policies. The Fiscal Research Program is also Georgia State University’s link to the Inter-University Consortium for Policy and Social Research (ICPSR), a limited-access data repository used by researchers across the country and around the world. As the ICPSR representative it is our job to make this data available to students and faculty for use in class and in research. Any student who needs data that is located at the ICPSR must contact the Fiscal Research Program to make their requests. Given these goals, the Distributed Econometrics Lab is clearly a means of achieving the strategic plans of the Fiscal Research Program.

7. Impact on Students Served

Provide a paragraph describing the number and types of students served or special audiences served. Identify, if possible, the target audience and potential service numbers. If appropriate, identify the number of hours in which the facility will be accessible to students, any restrictions regarding access, any special staff services that will be made available, or any specialized hardware or software that will be made available.

Those who may potentially benefit begin with the hundred or so individuals enrolled in econometric classes. It also includes students enrolled in other classes requiring research papers involving quantitative methodology, or students who are actively engaged in thesis or dissertation requirements within the Andrew Young School of Policy Studies. And, although these individuals are the primary beneficiaries of the lab other graduate students outside the AYSPS may also benefit from the facilities. The Lab will provide access to both general application statistical packages such as SAS, Stata and SPSS. It will also provide access to more specialized packages, like Limdep (limited dependant variable analysis) and possibly SpaceStat (spatial analysis). And, since the server will operate 24 hours per day, access is available around the clock.

8. Justification of Funding Requirements for Fiscal Year 2002

Provide a specific description of the funding requirements in FY2002. Itemize and total the following categories of expense. If necessary, add lines to the table below corresponding to accounting objects of expense:

<table>
<thead>
<tr>
<th>Object of Expense</th>
<th>Itemized Descriptions</th>
<th>Quantity</th>
<th>Extended $ Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff Salaries</td>
<td>Item 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Item 2, etc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fringe Benefits</td>
<td>Item 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Item 2, etc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Salaries</td>
<td>GRA II (20 hours per week)</td>
<td>1</td>
<td>$10,000</td>
</tr>
<tr>
<td></td>
<td>Item 2, etc</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9. Consequences of Partial Funding

State what the consequences would be on the effectiveness and viability of the proposal if it were only funded in FY 2002 at the following percentages of the above requested total:

Only 75% funded: Partial funding will reduce the effectiveness, but not the viability of the project. If the project were funded at less than the full amount the most immediate consequence would be a scaling back of GRA hours and a reduction in the size of the storage space available. At 75% funding we would reduce GRA hours and the number of hard drives in the mass storage container.

Only 50% funded: At 50% funding the project would still remain viable, however, we would have to further reduce GRA hours, the number of hard drives in the storage container, and forego the processor upgrade, which would substantially reduce the overall capacity and performance of the Server/Lab.

10. Justification of Funding Requirements for Fiscal Years Following FY 2002

Provide a specific description of any requested continuing funding requirements after FY2002. Itemize and total the following categories of expense. *If necessary, add lines to the table below corresponding to accounting objects of expense:*

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<thead>
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<td>Student Salaries</td>
<td>GRA II (20 hours per week)</td>
<td></td>
<td>$10,000</td>
</tr>
<tr>
<td>Equipment (Note: Use standard dollar amounts and replacement thresholds from sections 11/12, or provide explanation in sections 11/12)</td>
<td>Item 1, etc</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11. Standard Dollar Amounts

In constructing the budgetary requests in step 4 above, computer workstations should be budgeted at the following levels:

- Windows/Intel processors workstation, including monitor: $2,300
- Apple Macintosh models: $3,000

Requests departing from the above standard amounts require documentation of the specific programmatic need that requires departure from this standard. (See Attachment 2: Standard Windows/Intel instructional workstation.) Please explain any requested departures below:

Provide any justification narrative of programmatic requirements here.

12. Standard Replacement Thresholds

All equipment being requested due to obsolescence or inadequacy of existing equipment must be itemized on the form provided in Attachment 3: Itemization of Equipment to be Replaced. Each item for which replacement funding is being requested will be in one of the following two categories:

Justification for the processor upgrade: Currently, the server, GSU ID # 201709 located in 1202 Urban Life, has four Pentium® III XEON (550Mhz, 2MB Cache each), which is quite adequate to serve the purpose, it was acquired for. But, in view of the added CPU requirements where there could be 10 to 50 students logging on to the server at a time, it is quite necessary to upgrade the processors to accommodate the added computational need. Statistical packages such as SAS are very resource intensive and in a multi-user environment response time degrades significantly when more than 10 users are accessing the same resources simultaneously. This upgrade is necessary to assure that the added responsibilities allocated to this server do not supplant the original intent of its purchase.

13. Prerequisite, Non-Technology Fee, Funding

None

14. Matching Funds
15. Staffing and Other Support Availability

Dr. Lakshmi Pandy and William J. Smith (both employees of the Fiscal Research Program under the administration of Dr. David L. Sjoquist) currently are charged with the responsibility of maintaining the server in its current capacity. A GRA II is requested to accommodate data requests and coordinate with instructors.

16. Space Availability

No additional space is required.

17. Impact on Facilities

None

18. Impact on Computing/Network Infrastructure

The impact on the network infrastructure is negligible. The use of Windows Terminal Server is viable from a dialup connection from an ordinary ISP, providing a graphical interface with the server. Furthermore, the server is connected to the Internet via a 10-megabit Ethernet card with dedicated bandwidth. No network upgrade or reconfiguration is necessary for implementation.

The method of connection for the server is proposed as follows: There will be no modems in the server. We are not intending to create a dial-up server. Individuals will have to have access to either ppp through the GSU dial-in or have their own ISP which will provide them an internet connection through which they can access the server. We are not providing any access independent of this. Users are required to be registered (i.e., logins and passwords), and we will keep extensive logs of access. We have tested the server using a small class and it worked pretty well using regular 56k dial-up ISP accounts (like mindspring). The reason we need disks is to provide space and keep separate SENSITIVE files from those that will be used by students.

19. Review and Acknowledgements

Joey Smith,

I have reviewed the proposal for a Distributed Econometrics Lab and I support it fully. It will contribute to the Fiscal Research Programs mission of providing access to data sets from the ICPSR and other sources for the entire University Community. Combining that improved access with a set of statistical packages will provide an important resource for both classroom use and dissertation and thesis research.

David Sjoquist

David L. Sjoquist
Director, Fiscal Research Program
Andrew Young School of Policy Studies
Georgia State University
Atlanta, GA 30303
(404) 651-3995
(404) 651-2737
Dear Joey,

I have reviewed your proposal for a Distributed Econometrics Lab, and I support it fully. I believe that it will contribute in important ways to a range of areas: it will give all of us greater access to data, it will help in our teaching, and it will improve graduate student research, especially in their dissertation and thesis work.

James Alm  
Chair, Department of Economics  
Acting Dean, Andrew Young School of Policy Studies

_______________________________
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Department of Economics  
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