# KANSAS STATE UNIVERSITY

# Agricultural Lender Survey

Brady Brewer, Brian Briggeman, Allen Featherstone and Christine Wilson

Department of Agricultural Economics Kansas State University

> Results: September Survey, 2014

# Survey Summary and Highlights

- While interest rates have continued to decrease, lenders expect this trend to reverse in the short- and long-term.
- Expectation for farm dollar volume remains strong despite sentiment that nonperforming loans will increase. There was a notable increase in the last quarter for operating loan volume.
- While the long-term expectation for non-performing loans saw little change from the Spring 2014 survey to the Fall 2014 survey, the sentiment that non-performing loans will increase in the short-term increased. This indicates lenders think that lower commodity prices may impact profitability sooner than during the spring.
- Livestock and crop sectors headed in two different directions. While the expectation for non-performing loans increased for crops, mainly corn and soybeans and the wheat categories, expectations for non-performing loans in the livestock sectors continues to decrease.
- Expectation of farmland values continues to soften. Only 2% more respondents indicated that land values in their service territory increased last quarter while the short- and long-term expectation for land values is lower than in the spring.

The Department of Agricultural Economics at Kansas State University conducts a semi-annual survey of Agricultural Lenders to gage the recent, short term and long term future assessment of the credit situation for production agriculture. The results provide a measure of the health of the sector in a forward looking manner.

Kansas State University has worked with the National Agricultural Credit Committee (NACC) and the Federal Reserve Bank of Kansas City in developing the questions and assessing the need for this information.

A list of 1,500 commercial lending institutions who are listed with agriculture as their main specialty was obtained from the FDIC data base as well as 92 Farm Credit institutions. This list was then internet searched for the emails of each of the lending institutions. The survey was sent to 500 lending institutions including the Farm Credit System, commercial lending institutions who have a specialty in agriculture according to the FDIC, vendor finance companies and insurance companies.

Each institution surveyed provided their sentiment on the current and expected state of four key areas: (1) farm loan interest rates; (2) spread over cost of funds; (3) farm loan volumes; (4) non-performing loan volumes; and (5) agricultural land values. Within each of these key areas, different loan types were assessed (farm real-estate, intermediate and operating loans) as well as the different agricultural sectors (corn and soybeans, wheat, beef, dairy, etc.).

The Fall 2014 survey had 43 lending institutions respond and the Spring 2014 survey had 58 lending institutions respond. Of the lending institutions responding to the Fall 2014 survey, 24% were from the Farm Credit System and 76% were from commercial lending institutions and insurance companies.

The survey responses are summarized using a diffusion index. This index is calculated by taking the percentage of those indicating increase minus the percentage of those indicating decrease plus 100. Therefore, an index above (below) 100 indicates respondents expect or experienced an increase (decrease) in the measure of interest. For example, Figure 3 illustrates that the index for the Fall 2014 expected long term farm real estate loan interest rates equals 195. This number can be described as 95% more respondents felt farm real estate loan interest rates will go up in the long run than those who felt interest rates would go down.

#### Figure 1, Demographics of Survey Respondents

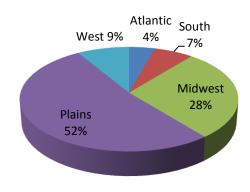


Figure 2, Loan Volume by Region

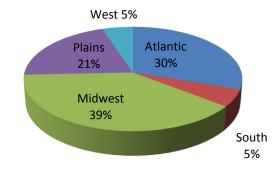
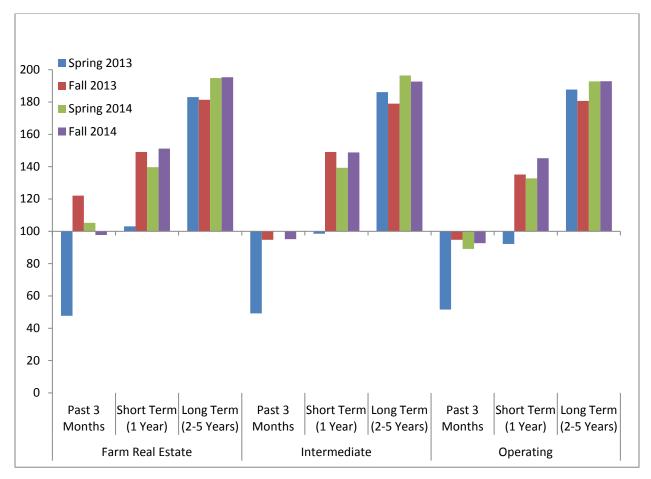


Figure 1 shows the demographics of the Fall 2014 survey respondents by primary service territory. The five territories are: Midwest, West, Atlantic, South and Plains. Table 1 has a list of the states in each region. Fifty two percent of survey respondents came from the Plains region while 28%, 9%, 4% and 7% came from the Midwest, West, Atlantic, and South regions, respectively. Nine percent of respondents indicated their respective lending institution was national in scope. Total agricultural loan volume of all respondents is estimated at \$123 billion. The largest lending institution to respond had \$80 billion in commitments and the smallest had \$10 million in agricultural loans. While the Plains region had the most respondents, Figure 2 shows that it only accounted for 21% of agricultural loan volume. The survey demographics for the Fall survey were similar to that of the Spring survey.

Figure 3 shows the survey results for loan interest rates from Spring 2013 to Fall 2014. Over the past three months, more respondents indicated a decrease in interest rates for all three categories. However, the short and long term expectations are for interest rates to increase. A main determinant in the expectation of interest rates is the Federal Reserve System, which has yet to announce future policy to increase the federal funds rate.





The spread over cost of funds is the difference between the loan interest rates charged by the lending institution and the interest rate paid by the financial institution for the funds that they deploy in their business. The reason for obtaining information for both loan interest rates and spread over cost of funds is to gauge competition in the agricultural lending market. A decrease in the spread over cost of funds suggests competition for agricultural loans among lending institutions may be increasing.

Figure 4 shows that survey respondents saw a decrease in the spread over cost of funds in the past three months. However, this trend is expected to cease in the long term as spread over cost of funds is expected to increase. This expectation has been inconsistent over the past two surveys as the expectation has increased from Spring 2014 to Fall 2014 with survey respondents no agreeing on one future direction for interest rate spreads (Table 2). The increase in spread over cost of funds in the long term could be a result of expectations for less competition in the lending industry (Figure 6).

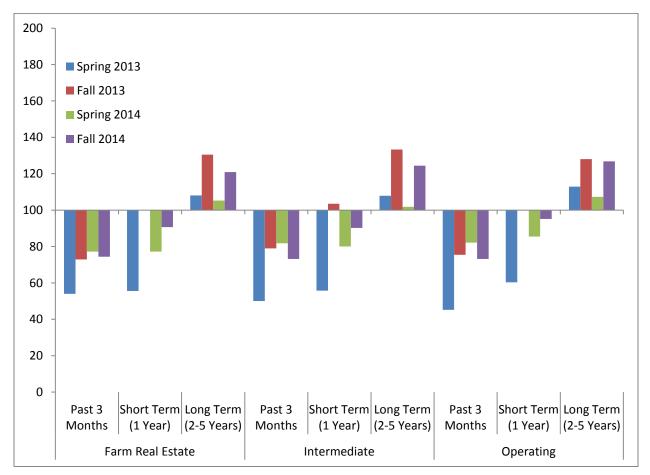




Figure 5 shows the responses for farm loan volume. This question analyzes the aggregate amount of agricultural lending. Over the past three months, total farm loan volume rose, which was led by strong farm real estate loan volume and operating volume. Part of the increase in operating loan volume is due to seasonality with the majority of survey respondents located in the plain states and wheat being planted in the fall causing a seasonality trend. However, another source of this increase in operating loans could be lower liquidity in the agricultural sector from lower commodity prices.

Looking forward, the volume of farm loans is expected to increase for all loan categories in both the short term and long term; however, the sentiment is not as strong as it was in the Spring 2014 survey. With the expectation of lower land values (Figure 9) and commodity prices, this outlook could change in the next year. One area where lenders are expecting to see a decline in loan volume is equipment loans. One respondent noted that "Equipment financing has decreased considerably" in their service territory.

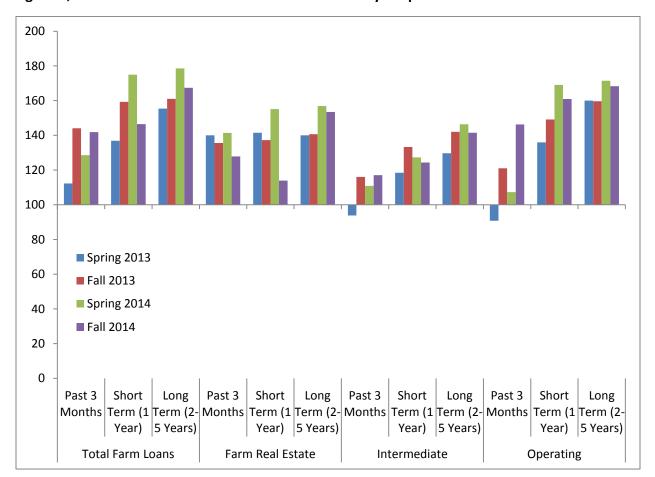


Figure 5, Farm Loan Volume – Diffusion Index of Survey Respondents

Figure 6 shows the results for non-performing loans analyzed by loan type. It illustrates that all categories of non-performing loans have decreased in the past three months. However, there is sentiment that these will begin to increase in the next year, a change from the previous surveys. In the long term, respondents believe that non-performing loans will increase for all loan categories. This shift occurred in Fall 2013 and has strengthened through the Fall 2014 survey with every loan category expecting an increase.

As mentioned previously, low commodity prices for certain crops will be key in the nonperforming loan rate the sector experiences. However, despite the lower commodity prices, farmers are still expected to see profits at least for another year. One respondent noted: "Great yields will help soften the losses farmers will take this year."

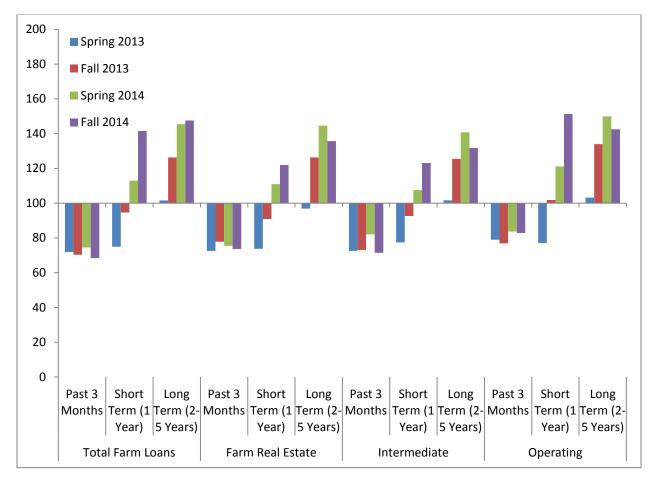


Figure 6, Non-Performing Loans, By Loan Type – Diffusion Index of Survey Respondents

Figure 7 shows the non-performing loans by crop industry sector. All crop sectors saw little change in non-performing loans the past three months; however, non-performing loans are expected to increase in the short term for corn and soybeans and wheat and in the short- and long-term for those sectors including cotton. It should be noted that one reason for the increase in non-performing loans in the long run is that currently many lending institutions have few non-performing loans.

One insight a respondent indicated is that guarantees from insurance through the next year will keep non-performing loans down at least through 2014 as they state "For the 2014 crop, insurance guarantees should be sufficient to keep non-performing loans from appearing through 2015. Given the likelihood that 2015 crop insurance guarantees will not afford the same protection, non-performing loans may become more of an issue beginning January 2016 for row crop based farmers."

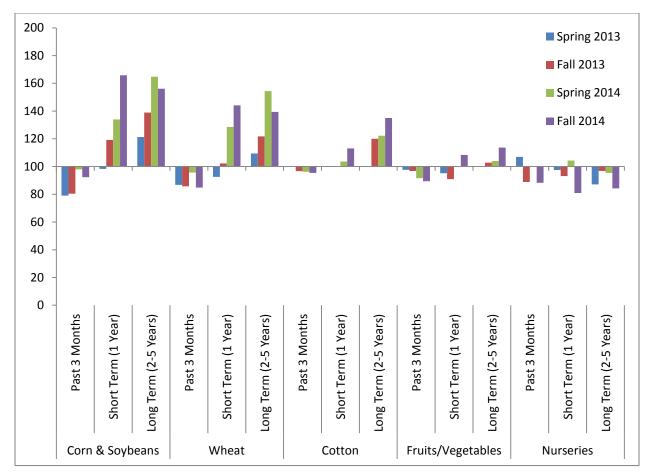




Figure 8 shows the non-performing loans by livestock industry sector. Respondents indicated that over the last three months the number of non-performing loans decreased partly due to the decline in grain prices. However, recent high prices for livestock products certainly has a role in the decline in non-performing loans. Despite the high prices, the long-term expectation for the livestock sector is still to see an increase in non-performing loans.

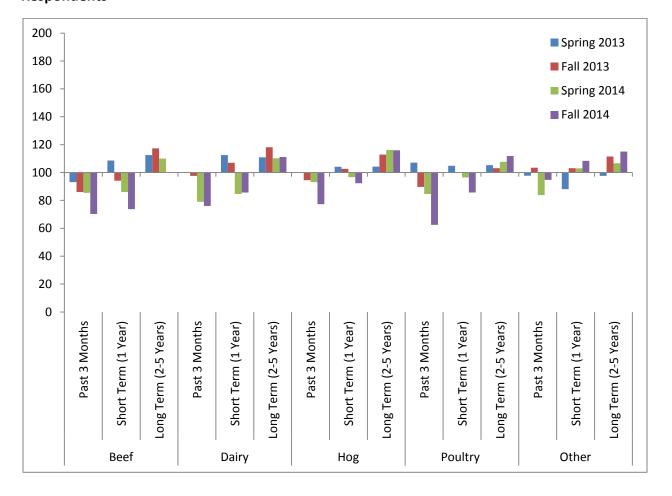


Figure 8, Non-Performing Loans, By Livestock Industry Sector – Diffusion Index of Survey Respondents

Figure 9 shows the survey responses for expectations on land values. More respondents indicated that they experienced an increase in land values the past through months, though there were about an equal number of respondents that indicated a decrease.

The sentiment for the short- and long-term continues to decrease for land values. With lower commodity prices and eroding liquidity due to lower profitability expectations, land buyers are expected to be more cautious when buying land in the short- and long-term. Stagnating land prices have already been reported in some Midwestern states.

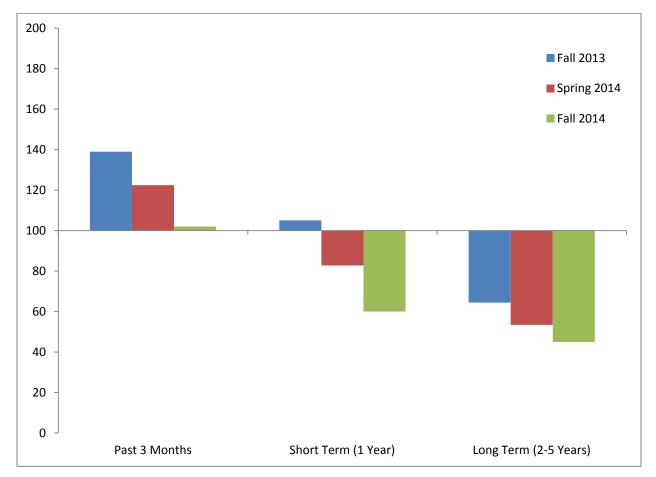


Figure 9, Land Values – Diffusion Index of Survey Respondents

# Table 1, States in Each Region

Atlantic CT, DE, KY, ME, MD, MA, NH, NJ, NY, NC, PA, RI, TN, VA, VT, WV
South AL, AR, FL, GA, LA, MS, SC
Midwest IA, IL, IN, MI, MN, MO, OH, WI
Plains KS, NE, ND, OK, SD, TX
West AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY

# Table 2, Respondent Responses

|            |  | Interest Rates                   |            |        |                  |      |                    |              |           |        |                  | Spread Over Cost of Funds |              |       |                |        |           |      |        |  |
|------------|--|----------------------------------|------------|--------|------------------|------|--------------------|--------------|-----------|--------|------------------|---------------------------|--------------|-------|----------------|--------|-----------|------|--------|--|
|            |  | Far                              | m Real Es  |        | Intermediate     |      |                    |              | Operating |        | Farm Real Estate |                           | Intermediate |       |                |        | Operating |      |        |  |
|            |  | Lower                            | Same       | Higher | Lower            | Same | Higher             | Lower        | Same      | Higher | Lower            | Same                      | Higher       | Lower | Same           | Higher | Lower     | Same | Higher |  |
|            | Spring 2013  | 55%                              | 42%        | 3%     | 52%              | 43%  | 2%                 | 48%          | 50%       | 0%     | 56%              | 35%                       | 10%          | 56%   | 37%            | 6%     | 58%       | 39%  | 3%     |  |
| Past Three | Fall 2013  | 17%                              | 44%        | 39%    | 12%              | 58%  | 30%                | 18%          | 70%       | 12%    | 36%              | 56%                       | 8%           | 30%   | 61%            | 9%     | 32%       | 61%  | 7%     |  |
| Months     | Spring 2014  | 14%                              | 67%        | 19%    | 13%              | 78%  | 30%                | 16%          | 50%       | 5%     | 28%              | 67%                       | 5%           | 24%   | 71%            | 5%     | 23%       | 71%  | 5%     |  |
|            | Fall 2014  | 14%                              | 74%        | 12%    | 12%              | 78%  | 7%                 | 15%          | 44%       | 7%     | 30%              | 65%                       | 5%           | 29%   | 68%            | 2%     | 32%       | 63%  | 5%     |  |
|            |  |                                  |            |        |                  |      |                    |              |           |        |                  |                           |              |       |                |        |           |      |        |  |
|            | Spring 2013  | 11%                              | 75%        | 14%    | 14%              | 72%  | 12%                | 17%          | 73%       | 9%     | 48%              | 51%                       | 3%           | 46%   | 54%            | 2%     | 43%       | 52%  | 3%     |  |
| Short Term | Fall 2013  | 0%                               | 44%        | 56%    | 0%               | 51%  | 49%                | 0%           | 65%       | 35%    | 22%              | 56%                       | 22%          | 19%   | 58%            | 23%    | 23%       | 54%  | 23%    |  |
|            | Spring 2014  | 5%                               | 50%        | 45%    | 5%               | 50%  | 45%                | 7%           | 53%       | 40%    | 32%              | 60%                       | 9%           | 31%   | 58%            | 11%    | 27%       | 60%  | 13%    |  |
|            | Fall 2014  | 2%                               | 44%        | 53%    | 2%               | 46%  | 51%                | 2%           | 50%       | 48%    | 23%              | 63%                       | 14%          | 22%   | 66%            | 12%    | 22%       | 61%  | 17%    |  |
| Long Term  | Spring 2013  | 2%                               | 14%        | 85%    | 2%               | 9%   | 88%                | 2%           | 8%        | 89%    | 31%              | 34%                       | 38%          | 30%   | 29%            | 38%    | 27%       | 32%  | 40%    |  |
|            | Fall 2013  | 0%                               | 19%        | 81%    | 0%               | 21%  | 79%                | 0%           | 19%       | 81%    | 14%              | 42%                       | 44%          | 12%   | 42%            | 46%    | 14%       | 44%  | 42%    |  |
|            | Spring 2014  | 0%                               | 5%         | 95%    | 0%               | 4%   | 96%                | 0%           | 7%        | 93%    | 26%              | 42%                       | 32%          | 27%   | 44%            | 29%    | 25%       | 42%  | 33%    |  |
|            | Fall 2014  | 0%                               | 5%         | 95%    | 0%               | 7%   | 93%                | 0%           | 7%        | 93%    | 16%              | 47%                       | 37%          | 27%   | 46%            | 39%    | 15%       | 44%  | 41%    |  |
|            |  | 0,0                              | 0,0        | 30,0   | 0,0              | .,.  |                    |              |           | 55,5   | 20/0             | .,,,                      | 0            | 1     |                | 0070   | 20,0      |      |        |  |
|            | Farm Dollar Volume<br>Total Farm Loans Farm Real Estate Intermediate Operating |                                  |            |        |                  |      |                    |              |           |        |                  |                           |              |       |                |        |           |      |        |  |
|            |  | Lower                            | Same       | Higher | Lower            | Same | Higher             | Lower        | Same      | Higher | Lower            | Same                      | Higher       |       |                |        |           |      |        |  |
|            | Spring 2013  | 32%                              | 22%        | 45%    | 12%              | 35%  | 52%                | 28%          | 46%       | 22%    | 40%              | 26%                       | 31%          |       |                |        |           |      |        |  |
| Past Three | Fall 2013  | 5%                               | 46%        | 49%    | 7%               | 51%  | 42%                | 9%           | 66%       | 25%    | 12%              | 20%<br>54%                | 33%          |       |                |        |           |      |        |  |
| Months     | Spring 2013  | 20%                              | 32%        | 49%    | 9%               | 41%  | 42 <i>%</i><br>50% | 16%          | 56%       | 23%    | 29%              | 35%                       | 36%          |       |                |        |           |      |        |  |
| WORT       | Fall 2014  | 12%                              | 35%        | 53%    | 16%              | 41%  | 44%                | 20%          | 44%       | 37%    | 12%              | 29%                       | 59%          |       |                |        |           |      |        |  |
|            | 1 811 2014   | 12/0                             | 3370       | 5570   | 10/0             | 4070 | 4470               | 2070         | 4470      | 5770   | 12/0             | 25/0                      | 5570         |       |                |        |           |      |        |  |
|            | Spring 2013  | 9%                               | 43%        | 46%    | 8%               | 43%  | 49%                | 9%           | 58%       | 28%    | 6%               | 50%                       | 42%          |       |                |        |           |      |        |  |
|            | Fall 2013  | 0%                               | 41%        | 59%    | 8%               | 46%  | 46%                | 5%           | 56%       | 39%    | 5%               | 40%                       | 54%          |       |                |        |           |      |        |  |
| Short Term | Spring 2014  | 2%                               | 21%        | 77%    | 3%               | 38%  | 59%                | 22%          | 29%       | 49%    | 4%               | 24%                       | 73%          |       |                |        |           |      |        |  |
|            | Fall 2014  | 9%                               | 35%        | 56%    | 19%              | 49%  | 33%                | 17%          | 41%       | 41%    | 7%               | 24%                       | 68%          |       |                |        |           |      |        |  |
|            |  |                                  |            |        |                  |      |                    |              |           |        |                  |                           |              |       |                |        |           |      |        |  |
| Long Term  | Spring 2013  | 9%                               | 25%        | 65%    | 15%              | 29%  | 55%                | 19%          | 30%       | 48%    | 5%               | 28%                       | 65%          |       |                |        |           |      |        |  |
|            | Fall 2013  | 2%                               | 36%        | 63%    | 8%               | 42%  | 49%                | 5%           | 47%       | 47%    | 4%               | 33%                       | 63%          |       |                |        |           |      |        |  |
|            | Spring 2014  | 0%                               | 21%        | 79%    | 7%               | 29%  | 64%                | 7%           | 39%       | 54%    | 0%               | 29%                       | 71%          |       |                |        |           |      |        |  |
|            | Fall 2014  | 5%                               | 23%        | 72%    | 14%              | 19%  | 67%                | 15%          | 0%        | 56%    | 17%              | 17%                       | 76%          |       |                |        |           |      |        |  |
|            |  | Non-Performing Loan by Loan Type |            |        |                  |      |                    |              |           |        |                  |                           |              |       |                |        |           |      |        |  |
|            |  | Tot                              | al Farm Lo | ans    | Farm Real Estate |      |                    | Intermediate |           |        |                  | Operating                 |              | A     | Ag Land Values |        |           |      |        |  |
|            |  | Lower                            | Same       | Higher | Lower            | Same | Higher             | Lower        | Same      | Higher | Lower            | Same                      | Higher       | Lower | Same           | Higher |           |      |        |  |
|            | Spring 2013  | 28%                              | 58%        | 0%     | 27%              | 63%  | 0%                 | 27%          | 61%       | 0%     | 24%              | 63%                       | 3%           |       |                | -      |           |      |        |  |
| Past Three | Fall 2013  | 31%                              | 67%        | 2%     | 24%              | 74%  | 2%                 | 29%          | 69%       | 2%     | 27%              | 69%                       | 4%           | 0%    | 61%            | 39%    |           |      |        |  |
| Months     | Spring 2014  | 27%                              | 71%        | 2%     | 28%              | 68%  | 4%                 | 20%          | 78%       | 2%     | 20%              | 76%                       | 4%           | 14%   | 50%            | 36%    |           |      |        |  |
|            | Fall 2014  | 32%                              | 68%        | 0%     | 29%              | 68%  | 3%                 | 29%          | 71%       | 0%     | 26%              | 66%                       | 9%           | 14%   | 69%            | 17%    |           |      |        |  |
|            |  |                                  |            |        |                  |      |                    |              |           |        |                  |                           |              |       |                |        |           |      |        |  |
|            | Spring 2013  | 28%                              | 58%        | 3%     | 30%              | 64%  | 3%                 | 26%          | 65%       | 3%     | 30%              | 61%                       | 7%           |       |                |        |           |      |        |  |
| Short Term | Fall 2013  | 18%                              | 18%        | 13%    | 15%              | 15%  | 5%                 | 17%          | 17%       | 9%     | 13%              | 13%                       | 15%          | 17%   | 61%            | 22%    |           |      |        |  |
|            | Spring 2014  | 9%                               | 69%        | 22%    | 9%               | 71%  | 20%                | 9%           | 74%       | 17%    | 8%               | 63%                       | 29%          | 33%   | 52%            | 16%    |           |      |        |  |
|            | Fall 2014  | 5%                               | 49%        | 46%    | 5%               | 68%  | 27%                | 5%           | 67%       | 28%    | 5%               | 38%                       | 56%          | 48%   | 45%            | 7%     |           |      |        |  |
|            | Spring 2013  | 19%                              | 56%        | 20%    | 21%              | 62%  | 17%                | 16%          | 65%       | 18%    | 16%              | 63%                       | 19%          |       |                |        |           |      |        |  |
|            | Fall 2013  | 14%                              | 46%        | 40%    | 12%              | 49%  | 39%                | 11%          | 53%       | 36%    | 11%              | 45%                       | 45%          | 46%   | 44%            | 10%    |           |      |        |  |
| Long Term  | Spring 2014  | 7%                               | 40%        | 53%    | 7%               | 41%  | 52%                | 6%           | 48%       | 46%    | 4%               | 42%                       | 54%          | 59%   | 29%            | 12%    |           |      |        |  |
|            | Fall 2014  | 10%                              | 33%        | 57%    | 10%              | 45%  | 45%                | 12%          | 44%       | 44%    | 13%              | 33%                       | 55%          | 64%   | 26%            | 10%    |           |      |        |  |
| L          | 1 011 2014   | 10/0                             | 55/0       | 5770   | 10/0             | 4J/0 | +J/0               | 12/0         | ++/0      | ++/0   | 13/0             | JJ/0                      | 5570         | 0470  | 20/0           | 10/0   | I         |      |        |  |