BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Docket No. R-2015-2518438

UGI Utilities, Inc. – Gas Division

Statement No. 2-R

Rebuttal Testimony of Ann P. Kelly

Topics Addressed:	**Final Accounting Exhibit** **Wage-Related Expenses** **Incentive Compensation Expense** **Rate Case Expense** **Cash Working Capital Expense** **Environmental Remediation Expense** **Employee Activity Costs** **OPEB Refund** **Use of Average FPFTY Plant** **Gas Inventory** **Universal Service Rider Adjustments**

Dated: May 10, 2016

I. INTRODUCTION

Q. Please state your name and business address.

A. Ann P. Kelly, 2525 North 12th Street, Reading, Pennsylvania 19612-2677.

Q. Did you previously submit direct testimony in this proceeding on behalf of UGI Utilities, Inc. – Gas Division ("UGI Gas" or the "Company")?

A. Yes. I submitted my direct testimony, UGI Gas Statement No. 2, on January 19, 2016.

Q. What is the purpose of your rebuttal testimony?

A. My testimony responds to certain accounting adjustments proposed in the following direct testimony submitted by other parties: the Direct Testimony of Lisa A. Gumby, I&E Statement No. 2; the Direct Testimony of Christopher Keller, I&E Statement No. 3; the Direct Testimony of David J. Effron, OCA Statement No. 1; and the Direct Testimony of Roger D. Colton, OCA Statement No. 4.

Q. Can you please provide an overview of the other parties' revenue requirement adjustments?

A. Yes. The Commission's Bureau of Investigation and Enforcement ("I&E") recommended a revenue requirement of $388,342,000, which represents a decrease of $18,639,000 to I&E's adjusted present rate revenues of $406,981,000. See I&E Statement No. 2, page 35. The Office of Consumer Advocate ("OCA") recommends a revenue decrease of $27,092,000 under present rates. See OCA Statement No. 1, page 3.

Q. Does the Company agree with the distribution revenue increase proposed by either I&E or the OCA?

A. No. As explained in UGI Gas's rebuttal, with the exception of certain updates to the Company's original filing and the acceptance of some minor adjustments, the Company believes that the various revenue, expense, and rate base adjustments proposed by the opposing parties should be rejected.

Q. Before responding to the other parties' specific adjustments, do you have any corrections or updates to the Company's claim?

A. Yes. Below is a summary of various adjustments, corrections, and updates to the Company's initial claim.

<u>Revenue Adjustment</u>

The Company is proposing an additional adjustment to its budgeted revenue. When preparing the budget, the Company included other gas revenue of $207,000[1] as an incentive for management to increase its total margin. This is not part of expected budgeted revenue and is not part of the normal expected operations of the Company. It therefore should be excluded from present rate revenues. This adjustment is shown on line 4 of Schedule D-5B of UGI Gas Exhibit A - Fully Projected (REVISED).

[1] *See UGI Gas response to OCA-VII-8*

Operating Expense Adjustments

OPEB

In discovery, the Company corrected an error in its calculation of the over-recovery of the Other Post-Employment Benefits ("OPEB") trust.[2] As provided in the Company's discovery response, the correct over-collection amount is $10.027 million which is slightly less than the original OPEB over-collection claim of $10.399 million. Consistent with my direct testimony, UGI Gas proposes to return this corrected over-collection amount to customers over 20 years, which results in a decrease in the annual refund to customers from $0.520 million to $0.501 million as shown on Schedule D-14 of UGI Gas Exhibit A - Fully Projected (REVISED).

Environmental Expense

As explained in the Rebuttal Testimony of Mr. Bell, UGI Statement No. 9-R, the Company is reducing its claim for environmental remediation expense from $3 million per year to $2.5 million per year as shown on Schedule D-8 of UGI Gas Exhibit A - Fully Projected (REVISED). This reduction is based on the actual minimum spending requirement in a recently executed Consent Order Agreement with the Pennsylvania Department of Environmental Protection.

Miscellaneous Expense Reductions

In discovery, the Company updated its claim for annual new software licensing fees to $226,000 for the contractor management system and $97,000 for the customer relationship management software due to receipt of vendor

[2] *See UGI Gas Response to OCA-1-35.*

quotes at a lower price.[3] These expense reductions are shown on schedule D-15 of UGI Gas Exhibit A - Fully Projected (REVISED).

In discovery, the Company updated its claim for the corrosion control program due to a subsequent reduction to the estimated cost of the project.[4] The revised cost of the corrosion control program is $266,000 as shown on Schedule D-15 of UGI Gas Exhibit A - Fully Projected (REVISED).

The Company is also reducing its adjustment for field wage increases on Schedule D-9 of UGI Gas Exhibit A - Fully Projected (REVISED) to account for the fact that the original claim included increases for employees that were not attributable to UGI Gas.[5]

Benefits Expense Omission

In its original filing, the Company did not include the associated benefits expenses with the new employees for which the salary was included as an adjustment and described on Schedule D-9. The additional benefits expenses associated with these employees in the combined amount of $663,000 are shown on lines 7-10 on Schedule D-9 of UGI Gas Exhibit A - Fully Projected (REVISED). This additional benefits expense was calculated using a benefit rate of 35% based on historical average benefits as a percentage of salary for employees who do not qualify for pension benefits.

[3] See UGI response to OCA-I-40.
[4] See UGI response to OCA-I-40.
[5] See UGI Gas response to OCA-1-25.

Rate Base Adjustments

ADIT/Repairs

As explained in the Rebuttal Testimony of Ms. McKinney, UGI Gas Statement No. 10-R, the Company is adjusting the accumulated deferred income taxes (ADIT) on line 5 of Schedule A-1 and Schedule C-6 of UGI Gas Exhibit A - Fully Projected (REVISED). This is due to two reasons. First is to reflect the adoption of the pro rata calculation required under Treasury Regulation 1.167(l)-1(h)(6)(ii). Second, the company had a change in its estimate of the fully projected future test year ending September 30, 2017 ("FPFTY") repairs tax deduction, which increased the amount of the accumulated deferred income taxes. The increase in the repairs tax deduction combined with pro-rating the ADIT caused an overall decrease in ADIT from $307,196,000 to $291,497,000.

Cash Working Capital

UGI Gas has made certain adjustments to its Cash Working Capital claim. The company has made two adjustments to the revenue lag calculation. First, as described below, the Company has accepted the recommendation of I&E and used a 12-month average to calculate the accounts receivable balance. Second, the Company did not include the receivables under its purchase of receivables ("POR") program in its original calculation of the numerator for the AR turnover calculation. This created an inconsistency with the calculation since the POR revenues were included in the sales figure, the denominator of the AR turnover calculation. The Company has correctly included the POR receivables in lines 2-

13 on page 3 of Revised Schedule D-4. The revised revenue lag is 59.00 days and is shown on line 22 of schedule C-4 page 3.

The Company also accepted the recommendation of I&E to use the 12-month payment experience to formulate the payment lag for other expenses rather than the 4-month proxy that it used in the original filing. In addition, the Company adjusted its working capital claim to reflect the adjustments to revenue and expenses described above. The revised payment lag of 27.87 days is shown on page 5 of Schedule C-4. The overall impact of these adjustments increases the Company's CWC claim from $18,648,000 to $21,600,000 (an increase of $2,952,000) as shown Schedule C-4 of UGI Gas Exhibit A - Fully Projected (REVISED).

Gas Inventory

The Company has accepted OCA's recommendation to calculate the gas inventory balance included in the claim based on the 13-months ending January 2016. The revised gas inventory balance of $15,853,000 I shown on schedule C-5 of UGI Gas Exhibit A – Fully Projected (REVISED).

Total Impact of Changes

The overall effect of these updates is an increase in the Company's jurisdictional FPFTY revenue increase from $58.6 million to slightly less than $60.0 million, using the Company's proposed return on equity of 11%. I note that the Company is submitting a final accounting exhibit, "UGI Gas Exhibit A - Fully Projected (REVISED)," that reflects all the corrections and updates to date. The Company recognizes that it cannot receive more than the original filing of $58.6

million, which would equate to a return on equity of 10.91% using the updated model.

Q. Are there any other changes that the parties should be aware of?

A. Yes. As described on pages 31-32 of my Direct Testimony, UGI Gas Statement No. 2, preliminary-stage project costs and business technology reengineering costs for the UGI Next Information Technology Enterprise ("UNITE"), which are required to be recorded as an expense under US GAAP, fit into the definition of costs that should be capitalized once placed in service. The Company has revised its estimates for the total amount of these costs from the initial filing due to updated cost information received from the vendors on the project. The revised total amount of these costs is anticipated to be $9.9 million for the new CIS project, of which $4.8 million will be allocated to UGI Gas.

Q. Is the Company making an adjustment to its revenue requirement for the revision in estimates?

A. No. A portion of these costs were budgeted as expense and were appropriately removed from the expenses in the initial submission as shown on Schedule D-13 of UGI Gas Exhibit A - Fully Projected. The total cost of the CIS project has not changed; rather, the Company has simply refined the allocation of these costs between those which may be capitalized under GAAP and those which fall into the category of costs which are properly capitalized under the FERC Uniform System of Accounts.

II. O&M ADJUSTMENTS

Q. Please summarize the O&M adjustments recommended by I&E and OCA.

A. Both I&E and OCA recommend adjustments to the Company's wage-related expense claims, and recommend that the Company's rate case expense be normalized over a five-year period. I&E and OCA also recommend changes to the amortization period for the Company's proposed OPEB refund, and OCA recommends that the unamortized portion of the OPEB refund be used to reduce the Company's rate base. In addition, I&E recommends an adjustment to the Company's incentive compensation claim and the amount of cash working capital ("CWC") in rate base and opposes the Company's claim for employee activities expense. I will further describe each of I&E's and OCA's O&M adjustments below.

A. WAGE-RELATED EXPENSE CLAIMS

Q. Please summarize the wage-related expense adjustments proposed by I&E.

A. On page 14 of I&E Statement No. 2, Ms. Gumby recommends that the Company's payroll expense claim be decreased from $37,189,000 to $36,504,722 (a decrease of $684,278). On page 15, Ms. Gumby recommends that the Company's benefits expense claim be decreased from $11,263,000 to $11,055,761 (a decrease of $207,239). Finally, on page 17, Ms. Gumby recommends that the Company's payroll tax expense claim be decreased from $3,397,000 to $3,086,392 (a decrease of $310,608).

Q. Please describe the basis for Ms. Gumby's proposed adjustment to the Company's payroll, benefits, and payroll tax expense claims.

A. Ms. Gumby's wage-related expense adjustments are based on her calculation of 19 employee vacancies she projects at the end of the FPFTY. As explained on page 15 of I&E Statement No. 2, Ms. Gumby compared the total number of monthly budgeted employees for fiscal years 2014 and 2015 with the actual number employees over the same period to arrive at an average employee vacancy rate of 1.84%. She then applied this vacancy rate to the total 1,032 budgeted positions claimed by the Company for the FPFTY to arrive at an estimated 19 employee vacancies. Ms. Gumby then adjusts the Company's FPFTY payroll, benefits, and payroll tax expense claims to reflect her calculation of 19 employee vacancies.

Q. Do you agree with Ms. Gumby's approach?

A. No. Although Ms. Gumby's average employee vacancy rate of 1.84% accurately reflects the two-year average difference between the total number of monthly budgeted and actual employees for fiscal years 2014 and 2015, Ms. Gumby overlooks that UGI Gas's budgets for 2016 and 2017 already reflect 20 vacancies. To be more specific, the expected approved headcount for 2016 was 20 positions higher than the budgeted positions listed in response to I&E-RE-14-D. A copy of the information provided in response to I&E-RE-14-D, updated for actual headcount through March 2016, is included in UGI Gas Exhibit APK-1.

Q. Please explain how UGI Gas's budget for the FPFTY already reflects 20 employee vacancies.

A. To create its budgeted positions and wages, UGI Gas took the total number of employees in the budget as of March 31, 2015, and compared it with the total employee head count at that time, which reflected 20 actual employee vacancies as compared to budget. UGI Gas then carried the 20 employee vacancies forward for the future test year ("FTY") and FPFTY budgets. As an example, for the FTY budget, UGI Gas increased the number of expected employees (head count) to 1,035 but only increased the budget for employee wages to reflect 1,015 employees as shown in I&E-RE-14-D. An identical vacancy rate of 20 employees was built into the FPFTY budget. Therefore, the Company's FPFTY payroll, benefits, and payroll tax expense claims already reflect, *i.e.*, exclude the costs associated with, 20 employee vacancies. For this reason, I&E's recommended adjustment to the Company's payroll, benefits, and payroll tax expense claims should be rejected.

Q. Is the employee head count trending to the budgeted number of employees?

A. Yes. In its budget, UGI Gas assumes that new employees will be hired ratably over the course of the budget year. As shown on this UGI Gas Exhibit APK-1, the headcount as of March 31, 2016, is only 1 position shy of the 996 positions budgeted through March 31, 2016.

Q. How does the year-to-date salary expense compare to the budgeted salary expense plus the salary related to the new headcount shown on Schedule D-9 of UGI Gas Exhibit A (FTY)?

A. On a year to date basis, the salary expense is $93,000 greater than the FTY budgeted salary expense, which includes half of the projected new employees listed on Schedule D-9 of UGI Gas Exhibit A (FTY) that were expected to be hired in the first half of the fiscal year.

Q. Do you agree with witness Gumby's adjustment for a reduction in the amount of benefits ($207,239) and payroll taxes ($310,608) due to employee vacancies?

A. No. As mentioned above, the Company's claim already reflects a vacancy rate of 20 positions and the Company's experience year-to-date through March 2016 shows headcount just one short of the end of year budgeted headcount, and benefits expense, as well as salary expense, has exceeded the amount reflected in the claim. Based on these results, reductions to the benefits expense and payroll taxes are not appropriate.

Q. Ms. Gumby also suggests a reduction to rate base for the capitalized portion of the payroll, benefits and taxes due to vacancies. Do you agree with this recommendation?

A. No. As explained above, the Company's claim already reflects a vacancy rate of 20 positions and, therefore, any rate base adjustments to the capitalized portion of the payroll, benefits, and taxes due to vacancies are not appropriate. In addition, the Company has planned for, and in some cases committed to, capital projects that it intends to complete. Any reduction in cost due to vacancies would be offset by an increase in contractor spending as the labor hours are essential to complete the projects.

Q. Please summarize the OCA's proposed adjustment to the Company's FPFTY wage expense claim.

A. On pages 21-22 of OCA Statement No. 1, Mr. Effron recommends rejection of the Company's annualization of the FPFTY wage increases. According to Mr. Effron, annualizing wage increases taking place in the FPFTY allows the Company to recognize payroll expenses that will be incurred during periods after the FPFTY. Mr. Effron therefore recommends that the Company's annualized FPFTY wage rate increases be rejected, which has an overall effect of reducing the Company's *pro forma* wage and salary expense by ($378,000). On page 25 of his testimony, Mr. Effron also recommends a reduction in payroll taxes of ($29,000) to reflect his proposed rejection of the annualized FPFTY wage rate increases.

Q. Do you agree with Mr. Effron's recommendations?

A. No, I do not. UGI Gas annualized its wage rate increases in UGI Gas Exhibit A - Fully Projected, Schedule D-7, to determine the total *pro forma* wage and salary expense at the end of the FPFTY. If the wage increases are not annualized as suggested by Mr. Effron, the wage and salary expense recovered during the FPFTY will not properly reflect employee wage levels at the end of the FPFTY.

Mr. Effron's wage and salary expense proposal is at odds with the use of a FPFTY. As explained in greater detail below in response to Mr. Effron's average rate base adjustment, the Company has consistently adjusted its FPFTY expenses, revenues, and rate base to reflect end of test year conditions. UGI Gas has filed this case using a FPFTY ending September 30, 2017, not the FTY ending September 30, 2016. For these reasons, Mr. Effron's proposed adjustments to the wage and salary expense and payroll taxes should be rejected.

B. INCENTIVE COMPENSATION

Q. Please summarize the OCA's proposed adjustment to the Company's *incentive compensation claim.*

A. On page 21 of I&E Statement No. 2, Ms. Gumby recommends a reduction of the Company's incentive compensation from $1,947,349 to $1,200,409 (a decrease of $746,940).

Q. How did Ms. Gumby calculate her recommended adjustment to incentive compensation?

A. In support of her proposed adjustment, Ms. Gumby relies on the incentive compensation total payout as a percentage of the total annual payroll for 2010-2015. Ms. Gumby then averages annual percentage of actual incentive compensation to total payroll for the years 2010-2015 to arrive at an average percentage of 2.53%. Ms. Gumby then uses her 2.53% average and applies it to the total FTY and FPFTY payroll to calculate the adjusted FTY and FPFTY incentive compensation amounts, resulting in $1,200,409 for the FTY and $1,239,017 for the FPFTY. Ms. Gumby then recommends that her calculated FTY incentive compensation be adopted rather than her calculated FPFTY incentive compensation.

Q. What is the basis for Ms. Gumby's proposed adjustment to the Company's incentive compensation claim?

A. On page 21 of her testimony, Ms. Gumby states that UGI Gas has not exhibited a historic record of paying incentive compensation at its claimed rates. She therefore proposes to use the historic average incentive compensation payouts to calculate the FTY and FPFTY incentive compensation amounts.

Q. Do you agree with Ms. Gumby's reliance on the historic average incentive compensation payouts to calculate the FTY and FPFTY incentive compensation amounts?

A. No. Ms. Gumby overlooks that UGI Gas's incentive compensation plans have *changed significantly since Fiscal Year 2015. First, several metrics were revised.* For example, UGI Gas changed a component of our employee safety metric, the recordable motor vehicle accident total, which previously included all recordable accidents, to only include metrics for preventable motor vehicle accidents.

Second, and more generally, the Company's plan was revised to permit incentive compensation for substantial attainment of specific goals. Under the prior structure if the Company was just short of achieving a metric, there was no payout. For 2016, the plan has included both a lower and upper range for each metric which payout at 50% and 150%, respectively. For example, one of the metrics for the 2016 plan is the customer satisfaction rating from the Metrix Matrix Survey. The Company's target for this metric is a survey result of 8.7, which would yield a payout of 100%. This year the Company included a lower rating of 8.4 which, if obtained, would result in a 50% payout and an upper rating of 9.0 which would result in a payout of 150%.

These above described changes to the Company's incentive compensation program result in an increased percentage of payout for the UGI Gas employees who are eligible for incentive compensation. Ms. Gumby's reliance on the historic average incentive compensation payouts to calculate the FTY and FPFTY incentive compensation amounts fails to account for the fact that UGI Gas's incentive compensation plans have changed dramatically since Fiscal Year 2015.

Q. Have you calculated the amount of incentive compensation for prior periods using the current incentive structure that is in place?

A. Yes. I recalculated the incentive compensation for 2014 and 2015 using the current plan structure. The results of this calculation are shown on UGI Gas Exhibit APK-2 and show that for 2014 and 2015, the incentive compensation expense would have been $1.5 million and $1.9 million, respectively and the incentive compensation as a percentage of salary would have been 3.47% and 4.06%, respectively with an average of 3.77%. When applied to the adjusted salaries for the FPFTY, the result is within $30,200 of the incentive compensation number reflected in the claim. This demonstrates that the Company's claimed incentive compensation is reasonable.

Q. Why does Ms. Gumby recommend that her FTY incentive compensation amount be used instead of the FPFTY incentive compensation amount?

A. According to Ms. Gumby, the incentive compensation for the FTY is paid out during the FPFTY between October 1, 2016 and December 31, 2016. Ms. Gumby therefore contends incentive compensation for the FTY is the actual expense incurred during the FPFTY.

Q. Do you agree with Ms. Gumby that the incentive compensation claim in this case should be based on the FTY incentive compensation plan?

A. No. Although the incentive compensation is paid to employees at the end of the fiscal year, the employees earn their incentive compensation throughout the year and UGI Gas accrues the incentive compensation expense over the fiscal year. That is, UGI Gas accrues the incentive compensation expense under the FPFTY incentive compensation plan during the FPFTY, which is then paid out to the employees at the end of the FPFTY. Ms. Gumby's reliance on the time of the employee cash pay out is inconsistent with accrual accounting and should be rejected.

C. RATE CASE EXPENSE

Q. Please summarize the rate case expense proposed by I&E and OCA.

A. On pages 24-27 of I&E Statement No. 2, Ms. Gumby recommends that the witness expenses associated with the proposed EE&C Plan ($88,600) be removed from the Company's rate case expense, and that the rate case expense be normalized over 5 years, which results in a total decrease in the Company's rate case expense claim from $628,000 to $233,480 (a decrease of $394,520). On pages 23-24 of OCA Statement No. 1, Mr. Effron recommends a 5-year normalization of the rate case expense, which results in a decrease in the Company's rate case expense from $628,000 to $251,200 (a decrease of $377,000).

Q. Do you agree with Ms. Gumby's recommendation that the witness expenses associated with the proposed EE&C Plan be removed from the rate case expense?

A. No. Ms. Gumby's proposal to remove the witness expense associated with the proposed EE&C Plan is based on her position that the proposed EE&C Plan should be denied. She offered no other reasons for the removal of these expenses from the rate case expense. For the reasons explained in the Rebuttal Testimony of Mr. Love, UGI Statement No. 11-R, the Commission should reject Ms. Gumby's recommendation that the proposed EE&C Plan be denied.

Further, even if the Company's proposed EE&C Plan is not accepted by the Commission, the witness expense associated with the proposed EE&C Plan should not be disallowed. UGI Gas, with the help and guidance of its expert witness, has invested significant effort and time in preparing its EE&C Plan before filing this base rate case. Further, UGI Gas will have incurred almost all of the witness expense associated with the proposed EE&C Plan by the time the Commission rules on the proposed EE&C Plan. Clearly, the witness expense associated with the proposed EE&C Plan will be incurred in this proceeding regardless of whether it is ultimately approved.

Moreover, taken at its face, Ms. Gumby's position suggests that utilities should not be permitted to recover rate case expenses for any witnesses that are responsible for a proposal that is ultimately rejected by the Commission. Ms. Gumby's proposal is unprecedented and implies that there should be a hindsight review of rate case expense to determine which witnesses expenses were attributable to proposals that were rejected in the Commission's final order. Under this approach, it would be extremely difficult to finalize rate case expenses by the effective date of the new rates.

In my opinion, Mr. Gumby's proposal to disallow witness expenses from rate case expenses on the sole basis that they are responsible for a proposal that may or may not be rejected by the Commission, should be outright rejected. If adopted, utilities would have no ability to budget for their rate case expenses. Moreover, the utilities could be put in the position of incurring costs without the ability to recover those costs.

Q. Both I&E and OCA recommend a 5-year normalization for rate case expense. Please summarize the basis for this proposal.

A. In UGI Exhibit A - Fully Projected, UGI Gas normalized its rate case expense over two years. Ms. Gumby and Mr. Effron both recommend that the rate case expense be normalized over 5 years. In support, both Ms. Gumby and Mr. Effron rely on the fact that UGI Gas's last rate case was in 1995 and the case prior to that was filed in 1982. Ms. Gumby also notes that although two-year rate case intervals were claimed in both the UGI PNG 2008 rate case and the UGI CPG 2010 rate case, neither company has since filed a base rate case.

Q. Do you agree that the rate case should be normalized over five years?

A. No. The frequency of UGI Gas's past base rate cases is not a predictor of the future. As explained in UGI Gas's DSIC filing at Docket No. P-2016-2537586, the Company estimates that it will reach the 5% DSIC cap within 15 months from the effective date of the DSIC. To the extent that the Company is subject to a Distribution System Improvement Charge maximum rate of 5 percent, the Company will be filing another rate case within two to three years given the significant level of capital expenditures it will incur over that period.[6]

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[6] *See Petition of UGI Utilities, Inc. - Gas Division for a Waiver of the Distribution System Improvement Charge Cap of 5% of Billed Distribution Revenues and Approval to Increase the Maximum Allowable DSIC to 10% of Billed Distribution Revenues*, Docket No. P-2016-2537586 (Filed March 31, 2016); *Petition of UGI Utilities, Inc. - Gas Division for Approval of a Distribution System Improvement Charge*, Docket No. P-2013-2398833 (Filed on March 31, 2016).

Further, Ms. Gumby and Mr. Effron overlook that UGI Gas has only claimed a portion of the capital costs associated with the new UNITE Program in this case. As explained in the Direct Testimony of Mr. Lord, UGI Gas Statement No. 8, only Phase I of the UNITE Program will be implemented and in service before the end of the FPFTY. Phases 2 and 3 (which have not been requested in FPFTY rate base claimed by the Company) will both be placed in service after the FPFTY. The Company will be filing another rate case within two to three years to timely recover the costs associated with the implementation of Phases 2 and 3 of the UNITE Program.

D. ENVIRONMENTAL REMEDIATION

Q. Please explain the OCA's recommended adjustment to the Company's environmental remediation claim

A. On page 22 of OCA Statement No. 1, Mr. Effron recommends that the Company's entire environmental remediation claim should be eliminated. According to Mr. Effron, the Company's environmental remediation accrual does not represent an actual cost incurred by the Company and should be eliminated from expenses. Mr. Effron's proposal results in a $3 million reduction in expenses.

Q. Do you agree with Mr. Effron's proposed adjustment?

A. No. In its filing, UGI Gas claimed $3 million for environmental remediation expense based on its plan to spend $3-5 million per year as of the end of the FPFTY as further explained in the Direct Testimony of Mr. Bell, UGI Statement

No. 9. Importantly, as explained in the Rebuttal Testimony of Mr. Bell, UGI Statement No. 9-R, the Company has entered a consent order agreement from the Pennsylvania Department of Environmental Protection, dated May 6, 2016, that provides that UGI Gas will be required to incur no less than $2.5 million per year beginning October 1, 2016, to remediate a number of former manufactured gas plant sites that were used to render service to UGI Gas's customers when those plants operated. These costs are clearly related to the Company's utility operations and constitute the minimum amount of cost that UGI Gas will incur on an annual basis over the course of the next fifteen years. Based on this requirement, I recommend that Mr. Effron's proposal be rejected and that the Company's claim for environmental remediation be adjusted from $3 million to $2.5 million.

Q. Did I&E witness Gumby express a view on the Company's environmental remediation expense claim?

A. Yes, while Ms. Gumby allowed approximately $0.5 million of such costs, she did so based on the historical level of expense. The historical measure of such expense should not be used because, as explained above, the $2.5 million required by the consent order agreement from the Pennsylvania Department of Environmental Protection is a new legal obligation for the company. That legal commitment should be reflected in the Company's rates. I would note that the Company's proposed accounting treatment for these costs, as discussed in my Direct Testimony, is supported by Ms. Gumby.

E. EMPLOYEE ACTIVITY COSTS

Q. Please describe I&E's recommended adjustment to employee activity costs.

A. On page 23 of I&E Statement No. 2, Ms. Gumby recommends disallowance of the Company's employee activity costs ($145,325). According to Ms. Gumby, ratepayers should not fund Company sponsored employee events.

Q. Do you agree with Ms. Gumby's recommended disallowance of employee activity costs?

A. No. I am advised by counsel that under Section 1321 of the Public Utility Code, utilities may not claim certain employee meeting expenses for ratemaking purposes if they are unrelated to the business or civic purpose of the event, such as costs for entertainment, recreation, athletic activities, personal clothing or other personal effects. The employee activity costs claimed by the Company, however, are related to special events for employees to recognize the employees' hard work and dedication, as well as to boost employee engagement and morale of the overall workforce. The Company also provides employee awards to recognize special employee milestone achievements and to recognize employees that have gone above and beyond in their services to the Company. UGI Gas Exhibit APK-3 contains a report from the Society for Human Resource Management (SHRM) Foundation entitled "Employee Engagement and Commitment; A guide to understanding measuring and increasing engagement in your organization." On page 1 of the study, the author cites how employees who have a high level of engagement give the company a competitive advantage, *primarily through higher productivity and lower employee turnover.* The study goes on to give examples of how both Caterpillar and Coors Brewing have experienced savings from decreased attrition, absenteeism and overtime, an increase in output, higher satisfaction, and better safety results. Clearly these are benefits that a utility should also want to enhance. On pages 14-15 of the study, the author discusses how compensation can powerfully influence employee engagement. He notes that compensation incudes both financial and non-financial elements and specifically mentions company picnics as an element of compensation.

In addition to being viewed as compensation, employee engagement activities foster a sense of community which increases communication between employees, enhances problem solving and improves productivity. For these reasons, UGI Gas submits that employee activity costs are an integral part of providing utility service to customers and, therefore, should be recovered in rates.

Q. On page 23 of I&E Statement No. 2, Ms. Gumby also asserts that the Company's employee activities claim should be rejected because ratepayers may not agree with the events due to religious reasons. Do you have a response?

A. Yes. With the exception of the Children's Christmas Party and Easter Egg Hunt, all of the Company's employee activities are nondenominational and unrelated to any religious affiliation. UGI Gas acknowledges that the invoice for its Holiday

Party states "Christmas Party." However, this employee event was at all times promoted as and held as a Holiday Party despite the entry on the invoice. The total costs for the Children's Christmas Party and Easter Egg Hunt were $3,500.

F. OPEB REFUND

Q. Please summarize the Company's proposal to refund the over-collection of OPEB trust.

A. As explained on page 34 of my Direct Testimony, UGI Statement No. 2, the Company accumulated an over-collection in the amount of $10.399 million over the 22 years since its last rate case, net of the Commission-approved re-direction of certain OPEB funding to fund a portion of CAP program costs. UGI Gas proposes to return this over-collection to customers over 20 years, *i.e.*, to return $0.520 million annually to customers over a similar time period that the OPEB recovery mechanism has been in place.

Q. Before addressing the parties' recommendations related to the OPEB refund, do you have any updates on the status of the OPEB balance?

A. Yes. As noted above, in discovery, the Company corrected an error in its calculation of the over-recovery of the Other Post-Employment Benefits ("OPEB") trust.[7] The correct over-collection amount is $10.027 million which is slightly less than the original over-collection OPEB claim of $10.399 million. UGI Gas proposes to return this over-collection to customers over 20 years, which results

[7] See UGI Gas Response to OCA-I-35.

in a decrease in the annual refund to customers from $0.520 million to $0.501 million as shown on Schedule D-14 of UGI Gas Exhibit A - Fully Projected (REVISED).

Q. Please describe I&E's proposal regarding the OPEB refund.

A. On pages 32-33 of I&E Statement No. 2, Ms. Gumby recommends that the OPEB refund should be over a 10-year period rather than a 20-year period, which would increase the annual amortization amount from $520,000 to $1,040,000.

Q. Why does Ms. Gumby recommend a 10-year refund period rather than a 20-year refund period?

A. According to Ms. Gumby, the OPEB over-collection occurred between 2006 and 2015, and that there was no substantive contribution to the over-collection prior to 2006.

Q. Do you agree with Ms. Gumby's use of a 10-year refund period?

A. No. Ms. Gumby's proposal is inconsistent with the Commission's Policy Statement at 52 Pa. Code § 69.351 regarding recovery of the OPEB costs that investor-owned utilities deferred after the adoption of Statement of Financial Account Standards (SFAS) No. 106. Ms. Gumby also disregards the fact that the collection of the OPEB in rates during the period of 1995-2006 contributed to the net OPEB balance that exists today.

Q. Please summarize the OCA's recommendation with respect to the OPEB over collection.

A. On pages 12-13 of OCA Statement No. 1, Mr. Effron recommends that the unamortized balance of the OPEB over-recovery be deducted from rate base during the refund period. If adopted, Mr. Effron's proposal would decrease base rates by $5,866,000.

Q. Does Mr. Effron oppose UGI Gas's proposal to refund the OPEB over-collection over a twenty-year period?

A. No.

Q. Do you agree with Mr. Effron that the unamortized balance of the OPEB over-recovery be deducted from rate base during the refund period?

A. No. UGI Gas's OPEB trust amount was never included in base rates. The Company adopted SFAS 106 in 1993. As approved by the Commission, the amount the Company accrued was recovered in rates over a period of 17.25 years, which did not include any return or interest on the unrecovered amount. I am advised by counsel that this is consistent with Commission practice, which has not allowed a return or interest on amortizations or refunds since the late 1970s. Moreover, because the Company did not recover a return on the regulatory asset, it would not be appropriate for the Company to reduce rate base for the current over-recovery. For these reasons, Mr. Effron's proposal that *the unamortized balance of the OPEB over-recovery be deducted from rate base* during the refund period should be rejected.

G. DEPRECIATION

Q. Do you agree with the depreciation adjustments proposed by OCA Witnesses Effron and Garren?

A. No. As further explained in the Rebuttal Testimony of Mr. John Wiedmayer UGI Gas Statement No. 5R, the Company does not agree with the adjustments proposed by Mr. Garren. Mr. Effron's proposed reduction to depreciation is based upon his recommendation to use average plant additions for the FPFTY reflecting average plant additions in service for the year, as well as basing the ADIT on average plant additions. As more fully described below, the Company does not agree with using average plant in service to determine rate base and so it does not agree with a reduction to depreciation based on the average plant in service for the FPFTY. Additionally, it should be noted that Mr. Garren's adjustment would be predicated on an improper starting point if one assumes that Effron's argument is correct. This is due to Mr. Effron's adjustment already removing \$1.4 million of depreciation expense in his average plant addition adjustment, which is not accounted for in Mr. Garren's adjustments. Accordingly, OCA's depreciation expense adjustment duplicates Mr. Effron's depreciation expense adjustment.

III. <u>RATE BASE</u>

Q. Before addressing the specific rate base adjustments proposed by the parties, please respond to I&E's recommendation that the Company provide updates to its actual capital expenditures, plant additions, and retirements.

A. On pages 10-11 of I&E Statement No. 6, Mr. Apetoh recommends that the Company provide I&E and the Commission's Bureau of Technical Utility Services *with updates to I&E Ex. 6, Schedule I, and SDR-ROR-14, pages 1-2, to reflect* the actual capital expenditures, plant additions, and retirements at the end of the FTY and FPFTY. Mr. Apetoh requests that these updates be provided no later than January 1, 2017, for the FTY, and January 1, 2018, for the FPFTY. UGI Gas believes that Mr. Apetoh's request is reasonable and consistent with the results reached in other utilities' rate cases and, therefore, agrees with Mr. Apetoh's proposal.

A. USE OF AVERAGE FULLY FORECASTS TEST YEAR PLAN

Q. Has any party made a claim regarding the Company's FPFTY plant-in-service claim?

A. Yes. On pages 8-9 of OCA Statement No. 1, Mr. Effron recommends a net rate base reduction of $55,271,000 to reflect an average pro-forma rate base for the FPFTY based on the Company's filed data. This adjustment reflects the netting of a $76 million plant in service disallowance and the elimination of about $21 million of offsetting Accumulated Deferred Income Taxes. On page 10 of OCA Statement No. 1, Mr. Effron also recommends a reduction of $1,480,000 in the annual depreciation expense based on the use of average balances of FPFTY depreciable plant in service.

Q. Do you agree with the overall adjustment to rate base?

A. Not at all. On page 6, Mr. Effron suggests that using an average rate base for the test year more accurately reflects the entire time in which resulting rates are being collected.

First, I do not agree that using an average rate base more accurately reflects the entire time in which resulting rates are being collected. Rates set in this proceeding will take effect on October 19, 2016 and will be in effect for at least two years or, per Mr. Effron's rate case normalization period, five years. I do not see how using an average rate base instead of a year-end rate base more accurately reflects plant investment during the "entire time" rates will be in effect. This would only be true if rates were in effect for only one year, which neither Mr. Effron nor the Company believes to be accurate.

Second, Mr. Effron fails to acknowledge that under ratemaking treatment prior to passage of Act 11 of 2012, end of test year plant balances were routinely accepted. Prior to Act 11 of 2012, Pennsylvania allowed for the use of a Future Test Year in which plant-in-service <u>projected</u> to be placed in service before the end of the future test year and before the effective date of rates was permitted for ratemaking purposes, and as such, the year-end balance was not challenged as an acceptable amount for ratemaking. In my opinion, there is simply nothing to support deviating from the long-standing convention of using a test year-ending balance.

Q. How does Act 11 of 2012 change how the Commission should evaluate the Company's claim?

A. In this case, the Company chose to utilize the fully projected future test year concept permitted by Act 11. According to counsel, the FPFTY is defined in Section 315(e) as the follows: ".... a fully projected future test year, which shall be the 12-month period beginning with the first month that the new rates will be placed in effect . . . [and] the commission may permit facilities which are projected to be in service during the fully projected future test year to be included in the rate base." Thus, the plain language of Section 315(e) clearly contemplates that any plant placed in service during the FPFTY may be included in rate base.

Q. Are there other flaws in Mr. Effron's calculation of his adjustments?

A. Yes, there are two. First, as discussed in Mr. Lahoff's rebuttal testimony, UGI Gas Statement No. 6-R, at pages 18-19, Mr. Effron seriously understated, by about $2.3 million, the amount of end of test year operating revenue that should be removed from pro forma revenue in connection with his adjustment. This would place Mr. Effron's related revenue adjustment on a consistent basis with the elimination of revenue producing plant that is built into his plant adjustment.

Second, and perhaps more importantly, while Mr. Effron does eliminate the ADIT associated with the disallowed plant additions, he fails to acknowledge that his flow through recommendation, related to the Company's current year repairs tax deduction, should also be adjusted. As his plant adjustment effectively disallows one-half of the tax basis for his repairs tax adjustment (specific groups of plant assets placed into service in the FPFTY), the tax basis of his repairs tax deduction should also be reduced by one-half, or $22,857,000 under the Company's revised repairs tax deduction, which would also reduce the revenue requirements impact of his proposed flow-through method. He has not done so. This is more fully explained in the testimony of Nicole M. McKinney, UGI Gas Statement No. 10R, and calculated in UGI Gas Exhibit NMM-2.

While the Company strongly disagrees with the use of average year projected test year of his repairs tax flow-through recommendation, Mr. Effron's failure to consider these two items result in a grossly overstated reduction to revenue requirement that is out of touch with fair and balanced ratemaking principles.

Q. Are there other issues or concerns regarding the use of a non-year-end amount for rate base?

A. Yes. If the Company adjusts its rate base amount to an average to be used for ratemaking, it significantly complicates the calculation of associated taxes. Income tax calculations related to plant and depreciation must also follow the schedule of the plant-in-service. In fact, Treasury Regulation Section 1.167(l)-

(h)(6)(ii) requires that a pro-rata method, based on the time at which plant is projected to be placed in service, be used to calculate the amount of ADIT to be taken into account for rate making purposes. Mr. Effron's adjustment to deferred taxes on page 26 of OCA Statement No. 1 using an "average" rate base is inconsistent with the requirements of the Treasury Regulations. Mr. Effron's proposal to use average plant-in-service introduces unnecessary complication and additional tax risk by potentially decoupling the calculation of plant-in-service from the related ADIT since the ADIT must be calculated in accordance with the Treasury Regulations. If the Company's pro-rata method is not followed, this may jeopardize the Company's ability to claim accelerated tax depreciation for income tax purposes.

Q. Do you have any additional concerns regarding the overall rate base adjustment recommended by OCA?

A. Yes. The OCA's adjustment to use an average plant-in-service also complicates the Company's ability to effectively and efficiently use the DSIC mechanism to accelerate investment in its distribution infrastructure. I am advised by counsel that Section 1358(b) of the Public Utility Code provides that the DSIC is set to zero as of the effective date of new base rates that provide prospective recovery of annual costs of DSIC eligible plant, and that the DSIC only becomes available to recover the fixed costs of new DSIC eligible property not previously reflected in the utility's rate base. The effective date of the DSIC under Section 1358(b) clearly contemplates that the DSIC will become effective once the rate base claimed in a FPFTY has been recovered in base rates. As explained above, Mr. Effron's blanket 50% rate base adjustment to all rate base components is inappropriate and, moreover, Mr. Effron offers no opinion on how the DSIC should be implemented under his FPFTY average rate base proposal. The OCA's proposed adjustment to use an average plant-in-service complicates the Company's ability to effectively and efficiently use the DSIC mechanism.

Additionally, Mr. Effron's proposal would have a significant impact on the Company's ability to recover the costs allocated to UGI Gas for the UNITE Program. As explained in the Direct Testimony of Thomas N. Lord, UGI Gas Statement No. 8, the Company's current billing system is one of the oldest utility billing systems in the United States, and must be replaced in order for the Company to continue to provide excellent service to its customers. As Mr. Lord explains, Phase I will be completed and in-service by September 5, 2017, *i.e.*, before the end of the FPFTY. UGI Gas will be allocated $43.0 million of the Phase I capital costs. Under Mr. Effron's proposal, however, only half of the Phase I costs allocated to UGI Gas ($21.5 million) would be included in rate base. The Company is depreciating these costs over 15 years, so if the Company did not have a rate case for five years, as Mr. Effron projects, the Company would permanently lose $7 million of rate base for Phase 1 of the UNITE Program.

B. GAS INVENTORY

Q. Do any of the parties propose an adjustment to the Company's gas inventory claim?

A. Yes. On page 10 of OCA Statement No. 1, Mr. Effron recommends reduction of $5,877,000 in gas inventory based on the average balance of gas inventory for year ended 2016.

Q. Do you agree with Mr. Effron's adjustment to gas inventory?

A. Using the 13-month average balance as of the end of the test year is standard rate making practice. The cost of gas can fluctuate in any given year so the witness should not be able to choose the 13-month period that generates the best result. UGI Gas's claim for gas inventory was based on the average actual month-end balances for the year ended September 2015, as shown on Schedule C-5 of UGI Gas Exhibit A - Fully Projected. This average balance is a proxy for that which will be incurred in the FPFTY. However, the Company will agree to use Mr. Effron's recommendation of using the 13-month average ending January 2016 and has revised its Gas Inventory amount on schedule C-5 for the Exhibit A Fully Projected (REVISED).

C. CASH WORKING CAPITAL

Q. Please describe I&E's recommended adjustment to the Company's Cash Working Capital claim.

A. On page 4 of I&E Statement No. 3, Mr. Keller recommends an increase in the Company's CWC claim from $18,648,000 to $20,835,000 (an increase of

$2,187,000). Mr. Keller's recommendation is based on the use of twelve months, instead of thirteen months, to calculate collection lag (I&E Statement No. 3, pages 4, 6), a payroll lag of seven days (I&E Statement No. 3, pages 4, 7), and the use of 12 months of data to calculate other expense lag (I&E Statement No. 3, pages 4, 8). On page 3 of I&E Statement No. 2, Ms. Gumby makes a corresponding CWC base rate adjustment.

Q. Do you agree with Mr. Keller's recommendation to use of twelve months to calculate collection lag?

A. The Company does not agree with Mr. Keller's theory that by using the accounts receivable balances for the thirteen months ended September 30, 2016, and the average monthly billings for the twelve months ended September 30, 2015, creates an inconsistency. However, the Company will agree to adjust the working capital calculation to incorporate only twelve months of accounts receivable balances as recommended by Mr. Keller.

Q. Do you agree with Mr. Keller's recommended payroll lag of seven days?

A. No. As shown on UGI Gas Exhibit A - Fully Projected, Schedule C-4, page 3, the Company proposed a payroll lag of 12 days. Mr. Keller recommends a payroll lag of seven days. Mr. Keller's proposal relies on UGI Gas's response to I&E-RE-57, which stated that the additional five days were from a legacy formula to reflect the lag days from when the payroll check was issued until it clears the company's bank account. Upon further investigation, the Company has determined that the response to I&E-RE-57 was incorrect. The Company identified that the payroll is earned during a two week pay cycle ending on a Sunday. The payroll is then paid out on a 5-day lag, primarily via direct deposit on Friday. The 5-day addition to the 7-day midpoint of the service period reflects the difference between the end of the service period on Sunday and the date the payment is made the next Friday. Therefore, no adjustment is necessary.

Q. Do you agree with Mr. Keller's recommended use of 12 months of data to calculate other expense lag?

A. UGI Gas calculated its other expense lag using 4 months of data in the original filing as a proxy for the actual annual lag. The Company agrees to adjust the other expense lag calculation to reflect the annual experience of 27.87 days as shown on Schedule C-4, page 5 of UGI Gas Exhibit A - Fully Projected (Revised).

IV. <u>CAP CREDITS</u>

Q. Please summarize Mr. Colton's adjustment on pages 5-6 of OCA Statement No. 4 to incorporate a bad debt offset for CAP Credits of 12.8% based on lost revenue already included in rates.

A. Mr. Colton's theory is that a utility receives a benefit from CAP in that revenue that the Company would otherwise have written off as uncollectible is reduced due to the existence of the CAP program, and that the Company's recovery of CAP Credits in its Universal Service Program (USP) Rider should be reduced by this reduction in uncollectible revenue. Mr. Colton bases his reduction of CAP

Credits on the 2014 uncollectible rate for confirmed low-income customers as reported to the Commission's Bureau of Consumer Services ("BCS") of 12.8%. He claims that allowing UGI Gas to recover 100% of the USP Rider would allow UGI to recover the portion of the bills that would go unpaid without CAP twice: first by UGI Gas's inclusion of this unpaid revenue in the Company's write-offs and again in UGI Gas's inclusion of this unpaid revenue as part of the CAP Credits recovered through the Universal Service Rider.

Q. Does the Company agree with these adjustments?

A. No, the Company records its provision for uncollectible accounts and its CAP Credits separately. The Company records its CAP Credits in FERC account 903. The budgeted amount for these CAP credits were included in the $1.8 million Budget shown on line 7 of schedule D-16 in UGI Gas Exhibit A (Fully Projected) and is included in the company's claim for Universal Services rather than in uncollectible expense.

The Company records its uncollectible account expense in FERC account 904 and used a three-year average uncollectible expense to determine the 1.669% uncollectible expenses as a percentage of revenue as shown on schedule D-11 in UGI Gas Exhibit A (Fully Projected). The three-year average uncollectible expenses already excludes the CAP credits since the company's current CAP program generates a similar level of credits based on CAP participation levels during that period, which, as noted above, are recorded in a separate FERC account and not in the calculation of the uncollectible account percentage used in the filing. Thus, there is no need to further reduce the total CAP credits to be collected through the Universal Service Rider by 12.8%.

Q. On page 18 of OCA Statement No. 4, Mr. Colton also suggests a reduction to CAP Credits recovered through the USP Rider by 8.6% on program participants exceeding an average annual participation rate of 8,700 to reflect a working capital offset for CAP Credits. Do you agree with this reduction?

A. No, I do not agree with this reduction for two reasons. First, a working capital offset is not appropriate. Second, Mr. Colton's analysis is flawed and reflects a working capital amount that is much higher than what would be appropriate.

Q. Why is a working capital offset not appropriate for CAP Credits?

A. A working capital offset is not appropriate for a number of reasons. First, there is not a one-to-one relationship between CAP Credits recovered through the USP Rider and uncollectible expenses in base rates for low-income customers who may or may not become CAP participants at some point in the future. Customers moving from a non-CAP status to a CAP status reduce non-CAP accounts receivable but increase CAP payments and CAP Credit accounts receivable. For existing CAP customers, the CAP payment accounts receivable and CAP Credits accounts receivable have their own payment lag that is already reflected in the Company's cash working capital study. What Mr. Colton has failed to show for customers above the 8,700 threshold in his testimony is whether the period that it takes non-CAP low-income customers' payments to reach the uncollectible stage (109 days) is shorter than the period that the Company takes to bill and recover the CAP payments from CAP customers and CAP Credits from customers bearing the USP Rider surcharge. Considering there is an average of a one-year lag between when the CAP Credit is generated and when it is factored into the USP Rider surcharge (mid-point of the CAP service period to the mid-point of the USP Rider collection period), it would seem that the working capital requirement is in fact greater than if the customers remained off CAP.

Q. If the Commission was to institute a working capital offset for CAP credits, do you agree with Mr. Colton's offset of 8.6%?

A. No, I do not believe an 8.6% offset would be appropriate. Besides being overly complicated and theoretically off-base, as discussed above, there are a number of flaws in Mr. Colton's analysis.

Q. How does Mr. Colton calculate the working capital offset?

A. Mr. Colton uses a CAP credit of $100 and calculates the portion that would fall into each aging bucket for both a low-income customer and residential customers as a whole. He then calculates the working capital per $100 bill attributable to the balances in each aging bucket. Next, he multiplies the working capital per $100 bill times the amount allocated to each aging bucket to arrive at a working capital savings for each bucket. He then adds the total working capital savings for each bucket to arrive at the total working capital savings for each low-income customers and total residential customers. Lastly, he takes the difference between the two working capital amounts to arrive at his proposed offset of 8.6%.

Q. Would you explain how Mr. Colton calculates the amounts that fall into each aging bucket?

A. Mr. Colton begins with the difference between the percentage of confirmed low-income dollars in arrears and the percentage of total residential dollars in arrears to determine the amount that would fall into the current bucket at that which would be in arrears. I do not dispute these numbers.

Next, Mr. Colton distributes the amounts in arrears into aging buckets stating that as arrears get older, they impose a greater working capital expense. Mr. Colton used the following percentages for low income customers:

- 30-60 days past due - 25%
- 60-90 days past due – 15%
- 90-120 days past due- 10%
- Over 120 days past due - 50%

He used the following percentage of arrears for total residential customers:

- 30-60 days past due - 22%
- 60-90 days past due – 13%
- 90-120 days past due- 9%
- Over 120 days past due - 56%

Mr. Colton skipped the 1-30 days bucket in his analysis and based on UGI Gas's experience these amounts should be much lower. I performed an analysis of the current amount of arrearage in each aging bucket for UGI Gas and found the following percentages for low income customers:

- 1-30 days past due – 26%
- 31-60 days past due – 20%
- 61-90 days past due – 14%
- 91-120 days past due – 6%
- Over 120 days past due – 33%

The same analysis yielded the following percentages for total residential customers:

- 1-30 days past due – 36%
- 31-60 days past due – 20%
- 61-90 days past due – 13%
- 91-120 days past due – 5%
- Over 120 days past due – 26%

I should also note that UGI Gas's practice is to write-off accounts 110 days after the final bill, unless the customer is on a payment plan. It is unreasonable to expect that 56% of the balances in arrears would be over 120 days past due as the majority would have been written off.

Q. How does Mr. Colton calculate the working capital attributable for $100 bill for each aging bucket?

A. As shown in his support for OCA Exhibit RDC-1, Mr. Colton uses the following steps to calculate the working capital for $100 bill for each aging bucket

1. He determines the Incremental Age for each aging bucket. For the current period he uses 15 days or the midpoint of a 30-day bucket. He then skips the 1-30 day past due bucket and for the 30-60, 60-90 and 90-120 buckets he uses 30 days plus the midpoint of the range and finally for 120+ bucket he uses 210 days.

2. He uses his recommended return on equity of 9% and then grosses it up for taxes to a rate of 12.6%

3. He calculates the Daily Return Factor of .0325% by taking the 12.9% annual rate, 365 days in the year and adjusts for interest compounding

4. *He calculates the working capital by using the following formula:*

> $100 CAP credit*((1+Daily Return Factor)^Incremental Age)-$100 Cap credit

5. He *annualizes the working capital calculated in step 4 above by* multiplying the amount by 12.

Q. Do you agree with Mr. Colton's calculation of working capital?

A. No there are a number of flaws in Mr. Colton's calculation which make it inaccurate. I will explain the inaccuracies associated with each of the corresponding steps in the previous question.

1. There are a number of items associated with the aging buckets. First, he uses the midpoint of 30 days instead of 20 days for the current bucket. Bills are due in 20 days so that midpoint of the range should be 10 days. He also does not include the current bucket and the 1-30 past due buckets into his working capital calculation. There is a large amount of receivables in this bucket

so they should be included. He is also adding 30 days to the midpoint of the range in the 30-60 through 90-120 aging buckets. Since the bills are due in 20 days, he should be adding 20 instead of 30 to each aging bucket. In addition, using 210 days for the 120+ bucket is also not appropriate. As noted above, UGI Gas's policy is to write off accounts receivable 110 days after the bill due date unless a customer is on an approved payment plan. Since the majority of accounts are written off by 130 days, using 210 days for this aging bucket is unreasonably high. In addition, Mr. Colton uses the same incremental age for both the low-income (with CAP) customers as he does for the total residential (without CAP) customers. Yet, he himself previously stated that the total residential pool of customers pays more frequently than the low-income customers.

2. Mr. Colton should use the total rate of return rather than the return on equity to determine the working capital offset. He should also use the gross revenue conversion factor to gross up the revenue from the return for both taxes and the uncollectible expenses on the revenue collected.

3. The Daily Return Factor should simply be the rate of return divided by 365 days in the year. There is no need to apply compounding to the amounts, as the revenue requirement formula does not take any compounding into accounting for the revenue requirement.

4. This calculation should simply be changed to apply the $100 cap credit x the Daily Return Factor x Incremental Age.

5. The calculation performed in step 4 takes into account the period of time that the amount is outstanding. Multiplying the amount by 12 grossly overstates the impact on the working capital by a factor of 12.

Q. Have you calculated an appropriate working capital offset for the CAP credit should the commission find one is appropriate?

A. Yes. If a working capital adjustment is to be used, the working capital offset for the CAP Credit for customers that exceed Mr. Colton's threshold of 8,700 customers should be no greater than the 0.44% as shown on UGI Gas Exhibit APK-4.

Q. On pages 19-20 of OCA Statement No. 4, Mr. Colton's proposes a working capital offset for Arrearage Forgiveness Credits of 45.3% to the Universal Services Rider for participants in excess of 8,700. Do you agree?

A. No. For the reasons stated above in connection with Mr. Colton's working capital adjustment for CAP Credits, a working capital offset is not appropriate. In addition, Mr. Colton's analysis assumes that the arrearage is forgiven immediately when it becomes in arrears and then becomes a receivable from the total residential class. This assumption is incorrect because (a) there is a period of time from when a customer becomes in arrears to when they enter the CAP program and (b) in accordance with UGI Gas's Universal Services Program the company forgives a CAP customer's pre-program arrearage balance on a one thirty-sixth (1/36th) basis (subject to a minimum of $10) upon receipt of each timely and in-full CAP monthly payment.

Currently, UGI Gas's customers on CAP have balances in aging buckets that are slightly more aged than those for the residential customers that I listed above. Mr. Colton's argument that these balances would switch from a low-income payment history to a total residential payment history is just not true as the arrearage would be outstanding on average for 18 months (midpoint of the 36-month forgiveness timeframe), which is longer than the average total residential payment cycle. Lastly, if one were to perform the same calculation as for the CAP Credits, the same issues with Mr. Colton's calculation of the working capital offset apply to the Arrearage Forgiveness Credits.

Q. Are there differences between Mr. Colton's calculation of the working capital offset for CAP Credits and the calculation for the working capital offset for Arrearage Forgiveness Credits?

A. Yes. First, Mr. Colton assumes that 100% of the arrearage forgiveness credits are past due, as that is the nature of the debt. Second, Mr. Colton uses 20 days as the Incremental Age for the current bucket rather than 15 days. As noted above, bills are due in 20 days so an appropriate midpoint is 10 days, not 20. Third, Mr. Colton uses 180 days as the Incremental Age for the 120+ age bucket. As noted above, accounts are written off 110 days past the due date so 180 days is unreasonable.

Q. Have you prepared a calculation of the appropriate working capital offset for Arrearage Forgiveness?

A. Yes. If a working capital adjustment for arrearage forgiveness is to be used, the working capital offset for Arrearage Forgiveness is 2.87% as is shown in UGI Gas Exhibit APK-5.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does.

UGI Gas Exhibit APK-1

UGI Utilities, Inc. - Gas Division

Employee Count

	6 Months Ended March 31, 2016											
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Union	301	301	301	302	306	304						
Non-Union	659	663	673	674	678	677						
Non-Union Temporary	11	13	16	17	13	14						
Total	971	977	990	993	997	995						
Budgeted Positions	993	993	993	996	996	996	1006	1006	1009	1015	1015	1015
Vacancies	22	16	3	3	-1	1						

UGI Gas Exhibit APK-2

UGI Utilities Gas Division
Recalculation of Incentive Compensation with Current Plan Structure

Fiscal Year	Total Payroll	Actual Incentive Compensation Paid	Projected Compensation Paid using FY2016 Plan	Actual Incentive Compensation Percentage	Incentive Compensation Percentage using FY2016 Plan
2014	$ 43,917,260	$ 1,000,763	$ 1,524,623	2.28%	3.47%
2015	$ 46,543,000	$ 1,481,135	$ 1,891,013	3.18%	4.06%
Average Percentage					3.77%

Year	Incentive Compensation Budgeted	Total Payroll Budgeted	Incentive Compensation Percentage
2016	1,918,571	48,274,000	3.97%
2017	1,947,349	50,891,000	3.83%

Year	Revised Claim	Impact to RR Model
2016	1,818,607	(99,964)
2017	1,917,196	(30,153)

UGI Gas Exhibit APK-3

SHRM FOUNDATION'S EFFECTIVE PRACTICE GUIDELINES

Employee Engagement and Commitment

A guide to understanding, measuring and increasing engagement in your organization

SHRM FOUNDATION
SOCIETY FOR HUMAN RESOURCE MANAGEMENT

Robert J. Vance, Ph.D.

UGI Gas Exhibit APK-3

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UGI Gas Exhibit APK-3

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Foreword

The SHRM Foundation Board of Directors appreciates how difficult it is for HR practitioners to keep abreast of current research findings and incorporate them into their own HR practices.

Human resource professionals juggle multiple responsibilities and do not have time to read long research reports, no matter how beneficial. Realistically, most HR practitioners will seek guidance from research findings only if they are presented in a clear, concise, and usable format.

To address this issue and make research more accessible, the SHRM Foundation created the *Effective Practice Guidelines* series in 2004. The Foundation publishes a new report annually on different HR topics. Past reports, available from the Foundation, include *Performance Management* and *Selection Assessment Methods*. You are now reading the third report in the series: *Employee Engagement and Commitment*.

To create each report, a subject matter expert with both research and practitioner experience distills the research findings and expert opinion into specific advice on how to conduct effective HR practice. The report is then reviewed by a panel of academics and practitioners to ensure that the material is comprehensive and meets the needs of HR practitioners. An annotated bibliography is included with each report as a convenient reference tool.

The newly created SHRM Foundation Research Applications Committee oversees production of the reports. Our goal is to present relevant research-based knowledge in an easy-to-use format. Please let us know if we've achieved that goal.

The Foundation's mission is "The SHRM Foundation maximizes the impact of the HR profession on organizational decision-making and performance, by promoting innovation, education, research and the use of research-based knowledge." We are confident that the *Effective Practice Guidelines* series takes us one step closer to making that vision a reality.

Frederick P. Morgeson, Ph.D.
Co-Chair
Research Applications Committee
Associate Professor of Management
Michigan State University

Maureen J. Fleming, Ph.D.
Co-Chair
Research Applications Committee
Professor of Management
University of Montana

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Associate Professor of Management, Eli Broad College of Business
Michigan State University

Reviewers Judith L. Clark, SPHR, CPC
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JT Kostman, Ph.D.
Director, People Equity Solutions, Metrus Group

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Manager, Special Projects, SHRM Foundation

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About the Author
Robert J. Vance, Ph.D.

Robert J. Vance is a partner of Vance & Renz, LLC, of State College, Pa., a provider of customer-focused solutions to problems in human resource management and organizational development. Dr. Vance has 25 years of consulting, research and teaching experience. He has directed projects in many private and public sector organizations in the areas of personnel selection, training, performance management, safety, employee and customer surveys, organizational development, innovation implementation and workforce development.

A member of the Society for Industrial and Organizational Psychology (SIOP), the American Psychological Association (APA), the Academy of Management, and the American Association for the Advancement of Science, his work has appeared in such publications as the *Journal of Applied Psychology, Personnel Psychology, Leadership Quarterly, Group and Organization Management*, and *Human Performance*. Recent publications include a chapter in *Customer Service Delivery: Research and Best Practices* (edited by L. Fogli), and "Organizational Cynicism," a contribution to the forthcoming *Encyclopedia of Industrial and Organizational Psychology* (edited by S. Rogelberg).

Dr. Vance served on a National Research Council committee examining future directions for occupational analysis and classification systems, and on an APA task force on workforce analysis. He is a corecipient of the SIOP's 1998 M. Scott Meyers Award for Applied Research in the Workplace, and the national University Continuing Education Association's 1994 Programming Award. He received his Ph.D. in industrial and organizational psychology from Pennsylvania State University.

Employee Engagement and Commitment

Employee engagement first. [No] company, small or large, can win over the long run without energized employees who believe in the [firm's] mission and understand how to achieve it. That's why you need to take the measure of employee engagement at least once a year through anonymous surveys in which people feel completely safe to speak their minds.

Jack and Suzy Welch

Employees who are engaged in their work and committed to their organizations give companies crucial competitive advantages—including higher productivity and lower employee turnover. Thus, it is not surprising that organizations of all sizes and types have invested substantially in policies and practices that foster engagement and commitment in their workforces. Indeed, in identifying the three best measures of a company's health, business consultant and former General Electric CEO Jack Welch recently cited employee engagement first, with customer satisfaction and free cash flow coming in second and third, respectively.[1] "Reaping Business Results at Caterpillar" and "Engagement Pays Off at Molson Coors Brewing Company" show two examples of companies that benefited from enhancing engagement and commitment.

Reaping Business Results at Caterpillar

Construction-equipment maker Caterpillar has garnered impressive results from its employee engagement and commitment initiatives, including:

- $8.8 million annual savings from decreased attrition, absenteeism and overtime (European plant)
- a 70% increase in output in less than four months (Asia Pacific plant)
- a decrease in the break-even point by almost 50% in units/day, and a decrease in grievances by 80% (unionized plant)
- a $2 million increase in profit and a 34% increase in highly satisfied customers (start-up plant)

Engagement Pays Off at Molson Coors Brewing Company

At beverage giant Molson Coors, engaged employees were five times less likely than nonengaged employees to have a safety incident and seven times less likely to have a lost-time safety incident. Moreover, the average cost of a safety incident for engaged employees was $63, compared with an average of $392 for nonengaged employees. By strengthening employee engagement, the company saved $1,721,760 in safety costs during 2002. Engagement also improved sales performance at Molson Coors: Low-engagement teams fell far behind engaged teams in 2005 sales volumes. In addition, the difference in performance-related costs of low- vs. high-engagement teams totaled $2,104,823.

But what are employee engagement and commitment, exactly? This report examines the ways in which employers and corporate consultants define these terms today, and offers ideas for strengthening employee engagement. Though different organizations define *engagement* differently, some common themes emerge. These themes include employees' satisfaction with their work and pride in their employer, the extent to which people enjoy and believe in what they do for work and the perception that their employer values what they bring to the table. The greater an employee's engagement, the more likely he or she is to "go the extra mile" and deliver excellent on-the-job performance. In addition, engaged employees may be more likely to commit to staying with their current organization. Software giant Intuit,[2] for example, found that highly engaged employees are 1.3 times more likely to be high performers than less engaged employees. They are also five times less likely to voluntarily leave the company.

Clearly, engagement and commitment can potentially translate into valuable business results for an organization. To help you reap the benefits of an engaged, committed workforce at your organization, this report provides guidelines for understanding and measuring employee engagement, and for designing and implementing effective engagement initiatives. As you will see, everyday human resource practices such as recruitment, training, performance management and workforce surveys can provide powerful levers for enhancing engagement.

Employee Engagement: Key Ingredients

"Employee Engagement Defined" shows examples of engagement definitions used by various corporations and consultancies. Clearly, definitions of employee engagement vary greatly across organizations. Many managers wonder how such an elusive concept can be quantified. The term does encompass several ingredients for which researchers have developed measurement techniques. These ingredients include the degree to which employees fully occupy themselves in their work, as well as the strength of their commitment to the employer and role. Fortunately, there is much research on these elements of engagement—work that has deep roots in individual and group psychology. The sections following highlight some of these studies.

Employee Engagement Defined

CORPORATIONS

Caterpillar

Engagement is the extent of employees' commitment, work effort, and desire to stay in an organization.

Dell Inc.

Engagement: To compete today, companies need to win over the MINDS (rational commitment) and the HEARTS (emotional commitment) of employees in ways that lead to extraordinary effort.

Intuit, Inc.[3]

Engagement describes how an employee thinks and feels about, and acts toward his or her job, the work experience and the company.

CONSULTANTS and RESEARCHERS

Corporate Leadership Council

Engagement: The extent to which employees commit to something or someone in their organization, how hard they work and how long they stay as a result of that commitment.

Development Dimensions International

Engagement is the extent to which people enjoy and believe in what they do, and feel valued for doing it.

The Gallup Organization

Employee engagement is the involvement with and enthusiasm for work

Hewitt Associates

Engagement is the state of emotional and intellectual commitment to an organization or group producing behavior that will help fulfill an organization's promises to customers - and, in so doing, improve business results.

Engaged employees:

- Stay - They have an intense desire to be a part of the organization and they stay with that organization;
- Say - They advocate for the organization by referring potential employees and customers, are positive with co-workers and are constructive in their criticism;
- Strive - They exert extra effort and engage in behaviors that contribute to business success.

Institute for Employment Studies[4]

Engagement: A positive attitude held by the employee toward the organization and its values. An engaged employee is aware of business context, and works with colleagues to improve performance within the job for the benefit of the organization. The organization must work to develop and nurture engagement, which requires a two-way relationship between employer and employee.

Kenexa

Engagement is the extent to which employees are motivated to contribute to organizational success, and are willing to apply discretionary effort (extra time, brainpower and effort) to accomplishing tasks that are important to the achievement of organizational goals.

Towers Perrin

Engagement is the extent to which employees put discretionary effort into their work, beyond the required minimum to get the job done, in the form of extra time, brainpower or energy.

Occupying the Job

Psychologist William Kahn[5] drew on studies of work roles[6] and organizational socialization[7] to investigate the degrees to which people "occupy" job roles. He used the terms "personal engagement" and "personal disengagement" to represent two ends of a continuum. At the "personal engagement" end, individuals fully occupy themselves—physically, intellectually and emotionally—in their work role. At the "personal disengagement" end, they uncouple themselves and withdraw from the role.

How do people become personally engaged in their work activities? Why do they become more engaged in some activities than others? Scholars have proposed answers to these questions based on their studies of the psychology of commitment.

Committing to the Work and the Company

Some experts define *commitment* as both a willingness to persist in a course of action and reluctance to change plans, often owing to a sense of obligation to stay the course. People are simultaneously committed to multiple entities, such as economic, educational, familial, political and religious institutions.[8,9] They also commit themselves to specific individuals, including their spouses, children, parents and siblings, as well as to their employers, co-workers, supervisors and customers.

Commitment manifests itself in distinct behavior. For example, people devote time and energy to fulfill their on-the-job responsibilities as well as their family, personal, community and spiritual obligations. Commitment also has an emotional component: People usually experience and express positive feelings toward an entity or individual to whom they have made a commitment.[10] Finally, commitment has a rational element: Most people consciously decide to make commitments, then they thoughtfully plan and carry out the actions required to fulfill them.[11]

Because commitments require an investment of time as well as mental and emotional energy, most people make them with the expectation of reciprocation. That is, people assume that in exchange for their commitment, they will get something of value in return—such as favors, affection, gifts, attention, goods, money and property. In the world of work, employees and employers have traditionally made a tacit agreement: In exchange for workers' commitment, organizations would provide forms of value for employees, such as secure jobs and fair compensation. Reciprocity affects the intensity of a commitment. When an entity or individual to whom someone has made a commitment fails to come through with the expected exchange, the commitment erodes.

Dramatic changes in the global economy over the past 25 years have had significant implications for commitment and reciprocity between employers and employees—and thus for employee engagement. For example, increasing global competition, scarce and

UGI Gas Exhibit APK-3

costly resources, high labor costs, consumer demands for ever-higher quality and investor pressures for greater returns on equity have prompted organizations to restructure themselves. At some companies, restructuring has meant reductions in staff and in layers of management.

Employee Engagement Survey Items: Samples

Dell

- Even if I were offered a comparable position with similar pay and benefits at another company, I would stay at Dell.
- Considering everything, Dell is the right place for me.

Development Dimensions International

- My job provides me with chances to grow and develop.
- I find personal meaning and fulfillment in my work.
- I get sufficient feedback about how well I am doing.

Institute for Employment Studies[12]

- A positive attitude toward, and pride in, the organization.
- A willingness to behave altruistically and be a good team player.
- An understanding of the bigger picture and a willingness to go beyond the requirements of the job.

Intuit[13]

- I am proud to work for Intuit.
- I would recommend Intuit as a great place to work.
- I am motivated to go "above and beyond" what is expected of me in my job.

Towers Perrin

- I am willing to put in a great deal of effort beyond what is normally expected to help my organization succeed.
- I understand how my role in my organization is related to my organization's overall goals, objectives and direction.
- My organization inspires me to do my best work.

Although restructuring helps organizations compete, these changes have broken the traditional psychological employment "contract" and its expectations of reciprocity. Employees have realized that they can no longer count on working for a single employer long enough to retire. And with reduced expectations of reciprocity, workers have felt less commitment to their employers. Many companies, having broken both formal and psychological employment agreements, are struggling to craft effective strategies for reviving employees' commitment and thereby revitalizing their engagement.

10 Common Themes: How Companies Measure Engagement

Employers typically assess their employees' engagement levels with company-wide attitude or opinion surveys. (See "Employee-Engagement Survey Items: Samples" on page 5.) A sampling of the criteria featured in such instruments reveals 10 common themes related to engagement:

- Pride in employer
- Satisfaction with employer
- Job satisfaction
- Opportunity to perform well at challenging work
- Recognition and positive feedback for one's contributions
- Personal support from one's supervisor
- Effort above and beyond the minimum
- Understanding the link between one's job and the organization's mission
- Prospects for future growth with one's employer
- Intention to stay with one's employer

This broad array of concepts has come to be labeled *employee engagement* by virtue of *linkage research*, which relates survey results to bottom-line financial outcomes. (See "About Linkage Research.") Workforce surveys will be covered in greater detail later in this report.

About Linkage Research

Psychologist Benjamin Schneider and colleagues in 1980 developed linkage research to show that employee perceptions of service to customers correlate highly with customers' evaluations of service quality.

Linkage analysts:

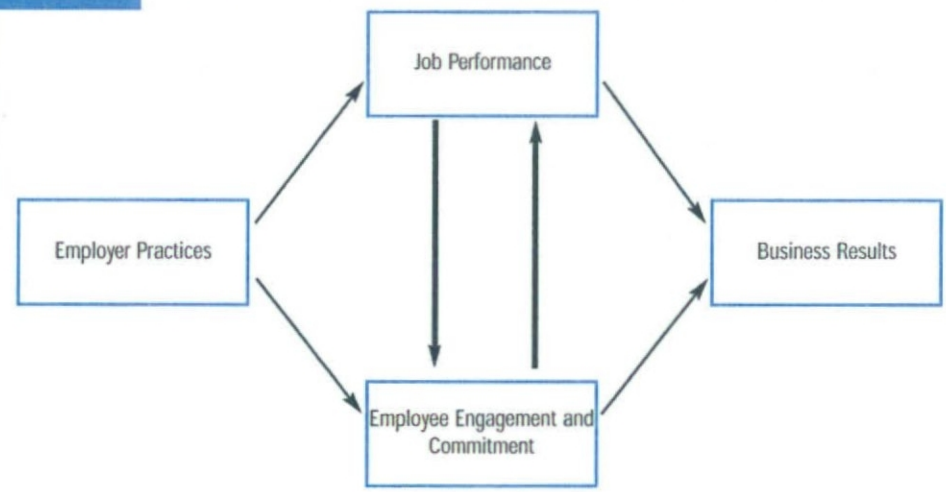
- Aggregate employee-opinion survey responses at the business-unit level (summarizing by averaging across survey respondents)
- Statistically correlate aggregated employee-opinion survey responses with measures of business outcomes, such as sales volume, profitability, customer loyalty, employee safety, attendance and retention.

Employee-engagement survey items are those having the strongest correlations with business results.

The Link Between Employer Practices and Employee Engagement

How does an engaged workforce generate valuable business results for an organization? The process starts with employer practices such as job and task design, recruitment, selection, training, compensation, performance management and career development. Such practices affect employees' level of engagement as well as job performance. Performance and engagement then interact to produce business results. Figure 1 depicts these relationships.

Figure 1 Employer Practices Ultimately Influence Business Results



Think about what engagement and commitment mean in your own organization. To help you get started, review the questions in "Food for Thought" below.

Food for Thought

Employee Commitment

- How do you and other managers in your organization define commitment?
- Are some employees in your company engaged in their work but not committed to the organization? Committed to staying with your firm but not exactly engaged in their work? Both engaged and committed?
- To whom are your organization's employees committed? The company? Their supervisor? Co-workers? Team members? Customers?
- What business results has commitment from employees created for your organization? For example, has commitment reduced turnover and, therefore, decreased recruitment, hiring and training costs?
- What does your company do to reciprocate employees' commitment? Is the organization living up to its side of the bargain?

Employee Engagement

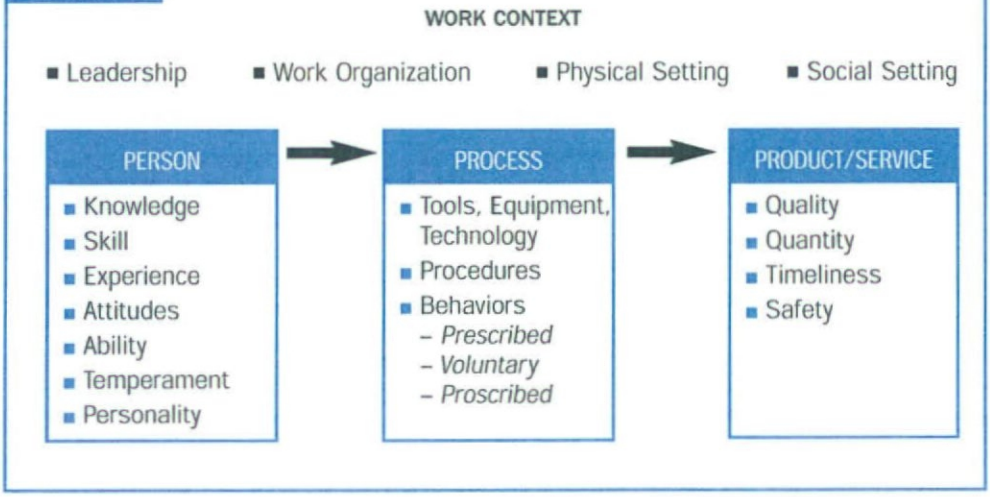
- How do you and other managers in your organization define employee engagement?
- How do you know that certain employees in your company are engaged? Do they relish their jobs? Enjoy specific responsibilities or tasks? Willingly "go the extra mile"?
- In teams, departments or business units in your company that have a large number of engaged employees, what business results are you seeing? Higher productivity? Lower costs? Greater revenues? More efficiency? Lower turnover? Higher product or service quality?
- Conversely, how do disengaged employees behave, and what are the consequent costs for their teams, units-and your entire company?

To engage workers as well as to benefit from that engagement, your organization must invest in its human resource practices. But just like other investments, you need to consider potential return—that is, to devote resources to the HR practices you believe will generate "the biggest bang" for your investment "buck." You must weigh how much engagement and commitment your company wants—and at what cost. Below, we review employer practices that affect employee engagement and commitment and examine ways to manipulate these "levers" to influence engagement or commitment or both.

To shed light on the ways in which employer practices affect job performance and engagement, Figure 2 presents a simple job performance model.[14]

As Figure 2 suggests, a person possesses attributes such as knowledge, skills, abilities, temperament, attitudes and personality. He or she uses these attributes to accomplish work behaviors according to organization-defined procedures, by applying tools, equipment and/or technology. Work behaviors, in turn, create the products and services that make an organization successful. We classify work behaviors into three categories: those required to accomplish duties and tasks specified in a job description (*prescribed* behaviors), "extra" behaviors that an employee contributes for the good of the organization (*voluntary* behaviors), and behaviors prohibited by an employer (*proscribed* behaviors, including unexcused absenteeism, stealing and other counterproductive or illegal actions).[15] Of course, job performance occurs in an organizational context, which includes elements such as leadership, physical setting and social setting.

Figure 2 A Job Performance Model



Employers naturally want to encourage workers to perform prescribed and voluntary activities while avoiding proscribed ones. To achieve these goals, organizations use a number of HR practices that directly affect the person, process and context components of job performance. Employees' reactions to these practices determine their levels of engagement and commitment. Next we examine several such practices in greater detail.

Job and Task Design

Over the past 250 years, the nature of work and employment has evolved through a series of stages. Initially, craftspeople and laborers worked on farms and in workshops. Then cottage industries arose, in which suppliers assembled goods and products for companies that marketed them. Later, people worked for companies in increasingly formalized employment relationships. And today, the world of work is characterized by flat and agile organizations that outsource production of goods and services on a global scale.[16]

Likewise, the nature of job and task design also has evolved.[17] For example, with the advent of mass production in the early part of the 20th century, many American companies adopted the "scientific management" approach to work design. Through scientific management, companies simplified tasks to be performed by highly specialized, narrowly trained workers.[18] Though this system enhanced efficiency, it also exacted costs: Workers—unhappy with routine, machine-paced jobs that afforded little personal control or autonomy—felt dissatisfied with their work, were often absent, and left employers in search of more meaningful employment.[19] In short, fitting jobs to efficient production systems disengaged employees and eroded their commitment.

Workers' negative responses to job design in early 20th century America spurred organizational scientists to examine the human component of work more closely. By the 1950s, several theories of job satisfaction and work motivation had emerged that related to job design, particularly the beneficial effects of *job enlargement* (broadening the scope of job tasks) and *job enrichment* (providing more complex and challenging tasks).[20]

With publication of the *job characteristics* model in the early 1970s, interest in the impact of job design on worker motivation and productivity intensified.[21] This model proposed five "core" or motivational job characteristics: skill variety, task identity, task significance (which collectively contribute to a sense of work meaningfulness), autonomy and performance feedback.[22] Jobs that have these characteristics promote internal motivation, personal responsibility for performance and job satisfaction—in short, engagement. The job characteristics model became so widely accepted by management scientists that comparatively few studies of work design and motivation have been published in recent years.[23]

As employers broadened the scope of job responsibilities in flatter organizations with less management oversight, researchers also began looking at the social characteristics of work, including interdependence of job roles, feedback from others and opportunities to get advice and support from co-workers.[24] Analysis of work-design research revealed that social characteristics strongly influence both employee engagement and commitment.

In addition, researchers have recently begun investigating job enrichment's relationship to proactive work behaviors—those self-initiated "extra" contributions noted in many engagement definitions.[25, 26] Findings show that managers who provide enriched work (jobs that are high in meaningfulness, variety, autonomy and co-worker trust) stimulate engagement and enthusiasm in their employees. In turn, engagement and enthusiasm encourage employees to define their work roles broadly. Broad definition of job roles then enhances workers' willingness to take ownership of challenges that lie beyond their immediate assigned tasks. These challenges inspire people to innovate and to solve problems proactively. Thus, job enrichment promotes engagement in both prescribed *and* voluntary work activities. Although somewhat preliminary, these studies shed valuable light on how your organization might design work to inspire employee engagement and commitment. "The Power of Job Enrichment" captures key lessons from this research.

The Power of Job Enrichment

TO INCREASE ENGAGEMENT

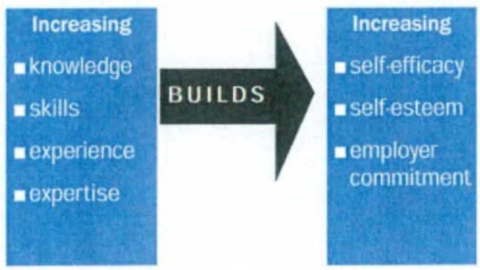
Imbue jobs with:

- meaningfulness
- variety
- autonomy
- co-worker support

With job enrichment, employee performance on prescribed tasks improves. Workers define their role more broadly—and willingly take on tasks outside their formal job description.

TO ENHANCE COMMITMENT

Demonstrate reciprocity by providing employees with opportunities for personal development.



Recruiting

The messages your organization conveys while seeking to attract job applicants also can influence future employees' engagement and commitment. If your firm has designed jobs specifically to engage employees, then you'll want to ensure that recruiting ads extol these positions' attractive features—such as challenging work assignments, a highly skilled team environment or minimal supervision. Applicants who notice and respond to these ads will more likely be motivated by these features.

Also consider how you might best seek candidates from inside your organization. When you recruit existing employees for desirable jobs, you enhance their engagement (by maximizing the person-job fit) *and* commitment (by providing growth and advancement opportunities to employees in return for their loyalty). If you recruit from outside when qualified internal candidates are available, you may unwittingly suggest to current employees that your company is not willing to reciprocate their commitment. Existing staff may then begin questioning their own commitment to your firm.

By contrast, you recruit external candidates to both the job and your organization. For these candidates, ensure that recruiting messages highlight attractive job features, organizational values and commitment reciprocity. That is, in return for performance and dedication, your company offers competitive pay and benefits, flexible work hours and learning and career advancement opportunities.

Also remember that prospective employees have multiple commitments: You will inevitably have to compete with those commitments as you try to attract candidates to your firm. Most people find it easier to make a new commitment when it is compatible with their other obligations. For example, you boost your chances of recruiting a highly qualified candidate who is a single parent if you offer flexible work hours, family health benefits and on-site day care. "Recruiting for Engagement and Commitment" captures some of the principles discussed above.

Recruiting for Engagement and Commitment

TO INCREASE ENGAGEMENT	TO INCREASE COMMITMENT
Target qualified applicants likely to find the work interesting and challenging. Send recruiting messages that: ■ Extol attractive job features to enhance person-job fit. ■ Encourage those who are not suited to the work to self-select out.	*For internal candidates* Send recruiting messages that: ■ Emphasize possibilities of movement/ promotion to more desirable jobs, to signal commitment reciprocity. *For external candidates* Send recruiting messages that: ■ Highlight the employer side of the exchange relationship-pay and benefits, advancement opportunities, flexible work hours. ■ Recognize and address commitment congruence (e.g., work-family balance.) ■ Encourage those who are not suited to the organization to self-select out.

Employee Selection

Once your recruiting efforts produce a pool of promising job candidates, you select among them to fill available positions. When you select the right individuals for the right jobs, your new hires carry out their work more smoothly and experience fewer performance problems.[27] The result? Greater enjoyment of—and engagement in—the job. (For more information on implementing formal assessments, see the SHRM Foundation's "Selection Assessment Methods"[28] by Elaine Pulakos.)

To enhance engagement through your selection of employees, identify those candidates who are best-suited to the job *and* your organization's culture. Also use candidate-assessment methods that have obvious relevance to the job in question—for example, by asking interviewees what they know about the role and having them provide work samples. Most candidates will view these techniques more positively than tests with less apparent relevance, such as personality and integrity assessments.[29] Successful candidates feel good about having "passed the test," and see your company as careful and capable for having selected them. A positive initial impression of an employer encourages growth of long-term commitment. "Effective Employee Selection" summarizes lessons from this section.

Effective Employee Selection

TO INCREASE ENGAGEMENT	TO INCREASE COMMITMENT
Select the right individuals for the right jobs. Choose candidates most likely to: ■ Perform prescribed job duties well. ■ Contribute voluntary behaviors. ■ Avoid proscribed activities	■ Present selection hurdles that are relevant to the job in question. Successful candidates will feel good about surmounting such hurdles to land the job. ■ Create a positive first impression of your company's competence. You will set the stage for growth of long-term commitment.

Training and Development

Training and development can serve as additional levers for enhancing engagement and commitment. For new hires, training usually begins with orientation. Orientation presents several important opportunities—including explaining pay, work schedules and company policies. Most important, it gives you a chance to encourage employee engagement by explaining how the new hire's job contributes to the organization's mission. Through orientation, you describe how your company is organized, introduce the new employee to his or her co-workers, give the person a tour of the area where he or she will be working and explain safety regulations and other procedural matters. In short, you foster person-organization fit—vital for developing productive and dedicated employees.

Through training, you help new and current employees acquire the knowledge and skills they need to perform their jobs. And employees who enhance their skills through training are more likely to engage fully in their work, because they derive satisfaction from mastering new tasks. Training also enhances employees' value to your company as well as their own employability in the job market. In addition, most companies offer higher wages for skilled workers, to compensate them for their greater value and to discourage turnover.

If your company is reluctant to invest in training, consider demonstrating to executives the links between training investments, employee engagement and measurable business results.

To get the most from your training investments, also explore how you might leverage digital technology and the Internet. Whereas companies once had to deliver training to employees in the same place at the same time, you can now use technology to offer self-paced and individualized instruction for employees in far-flung locations. Such training not only reduces your company's travel expenses; it also helps employees to manage their other commitments, such as family obligations. Consequently, their commitment to your organization increases.

"Training and Development" summarizes key lessons from this section.

Training and Development

TO INCREASE ENGAGEMENT

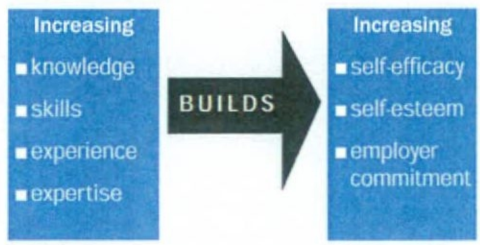
Provide employee orientation to establish:
- The employer-employee exchange relationship.
- Understanding of how the job contributes to the organization's mission.

Offer skill development to enhance:
- Performance.
- Satisfaction.
- Self-efficacy.

Provide training to encourage prescribed and voluntary performance.

TO ENHANCE COMMITMENT

Signal commitment reciprocity by:
- Your investments in training.
- Modes of training delivery that accommodate employees' other commitments.



Compensation

Like the HR practices discussed above, compensation can powerfully influence employee engagement and commitment. Some compensation components encourage commitment to employers, while others motivate engagement in the job. It is possible to stimulate one and not the other, though it's generally better to foster both. For example, a company that offers a strong performance incentive system but no retirement plan will probably realize exceptional engagement from its workers; however, they may eventually commit themselves to another company that does offer a good retirement plan. Meanwhile, an organization that offers generous retirement benefits but a traditional seniority-based pay grade system may have committed employees; however, these workers might deliver pedestrian performance as they bide their time until retirement. In designing compensation plans, you therefore need to consider employee engagement and commitment strategically.

Compensation consists of financial elements (pay and benefits) but may also include nonfinancial elements or perks, such as on-site day care, employee assistance programs, subsidized cafeterias, travel discounts, company picnics and so on. The most effective compensation plans support your organization's strategic objectives. For example, if your company's strategy hinges on innovation, then your compensation system should encourage and reward risk-taking. A well-designed compensation plan gives your organization a competitive advantage. How? It helps you attract the best job candidates, motivate them to perform to their maximum potential and retain them for the long term.

Incentive pay, also known as pay-for-performance, can directly influence employees' productivity (and thus their engagement) as well as their commitment to your organization (as workers learn to trust that they will be rewarded for good performance). Piecework, annual bonuses, merit raises and sales commissions are familiar examples of incentive pay that rewards individual performance. You can also tie incentive pay to team or work group performance, and to organization-wide results through profit sharing, gain-sharing, and employee stock ownership plans. Most employees are motivated by financial incentives and will exert greater effort to produce more if the incentives your company offers make it worthwhile to do so.

The caveat with incentive plans, of course, is that you must first define and measure performance and then decide which aspects of performance you will tie to pay. Because incentive-plan programs can present a heavy administrative burden, many companies opt to reward performance that is easiest to quantify. But this approach can have unintended—and undesirable—consequences. For example, if you pay people based on how many units of a product they assemble per hour, you may encourage quantity at the expense of quality: Employees assemble the units as fast as they can in order to get the incentive pay, regardless of whether they're making mistakes along the way. The challenge in using incentive plans is to reward the results most important to your organization—even if those results are relatively difficult to quantify. You also need to encourage employees' willingness to "go the extra mile" rather than just doing the minimum to reap a reward. To that end, you may want to combine financial incentives and recognition-based awards to foster the full range of performance your organization needs to stay competitive.

You might also consider competency-based (or skill-based) pay, which has grown more popular in recent years. Through competency-based pay, you reward employees not only for mastering job-relevant knowledge and skills but also for using those abilities to produce results that your organization values. This type of pay can increase engagement by fostering employees' pride in their new mastery. And it can enhance commitment because workers learn that the company is willing to help them burnish their employability.

Many companies also offer retirement plans as part of their compensation package. Although these plans are usually available to all full-time employees, the specific plans offered may depend on job, year hired, number of years employed, highest salary achieved and so on. As we've seen, well-designed and secure retirement plans can encourage long-term commitment to your organization.

In designing financial forms of compensation, consider employees' sensitivity to equity. Will they perceive compensation as commensurate with their contributions? As fair compared to pay earned by co-workers performing the same or similar jobs? Fair compared to what other jobs in the organization pay? Reasonable given what other employers are paying for the same work? Perceived inequity can cause employees to disengage and reexamine their commitment to your firm. They may ask for a raise, seek employment elsewhere or stop striving so hard to deliver top-notch results. And none of these outcomes benefits your organization.

"Strategic Compensation" distills some of the key points from this section.

Strategic Compensation

TO INCREASE ENGAGEMENT:

- **Equitable exchange:** Motivates willingness to contribute prescribed and voluntary performance, and to avoid proscribed behaviors.
- **Pay-for-performance:** Focuses employees' attention on incentivized behaviors—but be careful how you define performance.
- **Competency-based pay:** Fosters acquisition of knowledge and skill and enhance employees' performance, satisfaction and self-efficacy.

TO ENHANCE COMMITMENT:

- **Competitive pay:** Attracts qualified job candidates.
- **Equitable exchange:** Signals commitment reciprocity.
- **Flexible benefits and perks:** Facilitates commitment congruence (e.g., work-family balance matched to stage of life).
- **Retirement and seniority-graded pay plans:** Fosters long-term commitment and identification with your company.

Performance Management

The right performance management practices also can enhance employee engagement and commitment. (See the SHRM Foundation's report on "Performance Management"[30] by Elaine Pulakos for information on creating an effective system.) To design your performance management system, begin by linking job objectives to organizational objectives. What are your organization's priorities, and how will each employee help to achieve them? What results does your organization expect employees to produce? How might you help managers throughout your organization to communicate performance expectations and goals to their direct reports?

Encourage managers to include employees in the goal-setting process. This technique helps to ensure that workers understand the goals. It also promotes acceptance of challenging objectives, because people generally feel more committed to goals they have helped define.

In addition, consider how you and other managers will recognize and encourage contributions that exceed expectations. For example, when a piece of equipment malfunctions, Joe finds other ways to maintain production rather than merely shutting down the machine and waiting for the maintenance staff to fix it. Or when a less experienced co-worker encounters a new task, Sally offers friendly coaching, instead of standing by and waiting for the inevitable mistakes to crop up.

Performance management processes operate on a continuous basis. Therefore, they provide perhaps the best ongoing opportunities for employers to foster employee engagement and commitment. For example, managers can use routine discussions about performance and feedback sessions to learn which aspects of the job hold the most interest for each employee and which tasks are most challenging. During such discussions, managers also can define what "going above and beyond the call of duty" looks like and generate ideas for rewarding such contributions.

An employee's aspirations and career goals can receive careful attention during performance appraisal meetings. Without inquiring into an employee's personal life, a supervisor can nevertheless explore ways to enhance the compatibility between the worker's commitment to your organization and the employee's other life commitments. Through such means, the organization personalizes its relationship to each employee and provides support, while also expressing appreciation for their contributions—key drivers of engagement and commitment.

To further engage employees and win their commitment through your performance management programs, consider how to treat your organization's most experienced employees. In many cases, these employees understand the intricacies of a job better than their supervisors or managers do. By virtue of long identification with your organization, they may be deeply committed to high-level goals. They use their expertise to contribute in ways that newer employees simply cannot match. But many of them also may be planning to retire soon, especially if they are from the "Baby Boomer" generation. How will you transfer their knowledge to younger workers? Design a performance management system that recognizes and rewards proactive sharing of knowledge and expertise among co-workers. For example, create knowledge repositories or learning histories that can be stored in databases that employees can access, and then create incentives for people who contribute to and use these repositories.

Of course, effective performance management systems also identify employees who are not meeting expectations. Failing to address problem performance can erode other employees' engagement and commitment, as their workloads increase and they conclude that the company is willing to tolerate poor performance. If feedback, coaching and remedial training are of little avail, the manager may need to move the person to a different position within the company where he or she can make a more valuable contribution, or let the individual go if there is no good match elsewhere in the organization.

"Effective Performance Management" lists key points from this section.

Effective Performance Management

TO INCREASE ENGAGEMENT:

Provide:

- Challenging goals that align with your company's strategic objectives.
- Positive feedback and recognition for accomplishments.
- Recognition and appreciation for extra voluntary contributions.

TO ENHANCE COMMITMENT:

Manage performance to:

- Enable employees to experience success over the long term.
- Facilitate congruence between employee commitment to your organization and other life commitments.
- Value the expertise of experienced employees.

A Closer Look at Workforce Surveys

Many organizations use workforce surveys to gauge the intensity of employee engagement and assess the relationships between engagement and important business results. Findings from such surveys can shed light on which investments in engagement initiatives are paying off, which are not and how you might change your engagement-related HR practices and investment decisions.

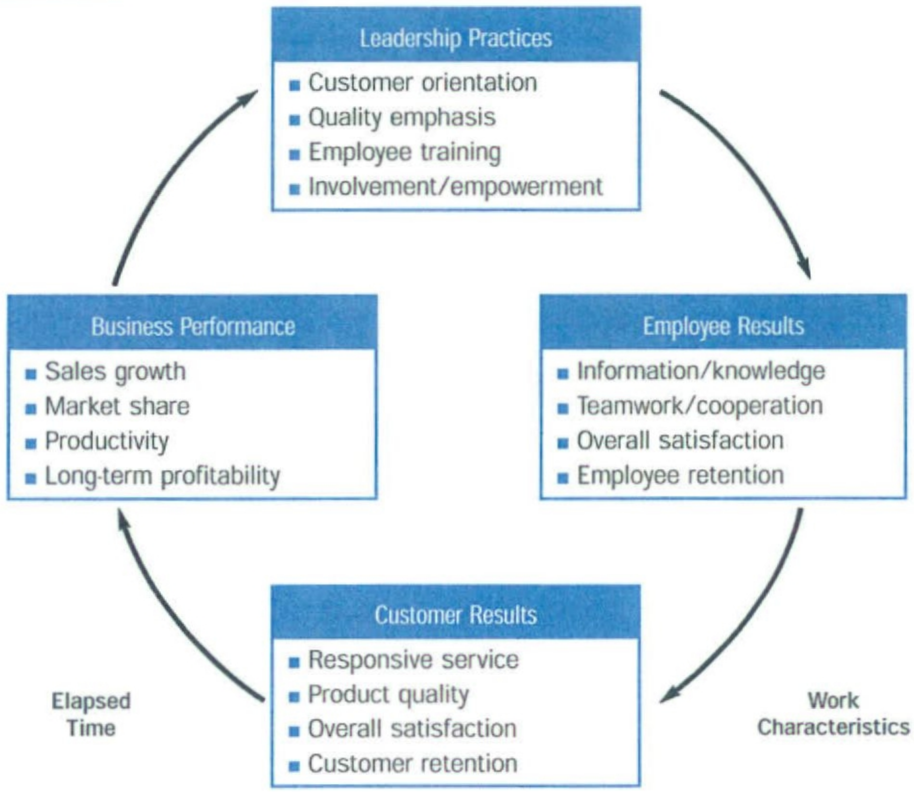
Today's employee surveys are often shorter, more narrowly focused and more frequently administered than traditional instruments. In many cases, respondents also fill out the surveys online rather than using paper and pencil. Survey questions or statements now explicitly link employee attitudes to business objectives; for example, "I can see a clear link between my work and Dell's objectives."

Engagement surveys conducted by research firms across many organizations typically give rise to empirically grounded engagement models. Consider this example from the Corporate Leadership Council (CLC).[31] Based on extensive surveys of more than 50,000 employees of 59 global organizations representing 10 industries and 27 countries, the CLC model identifies 300-plus potential "levers of engagement" (specific employer practices that drive employee engagement). These levers collectively influence employees' rational and emotional commitment to their jobs, teams, managers and company, which in turn influences employees' discretionary efforts and intentions to remain with their employers. "Going the extra mile" and planning to stay with a company then lead to improved performance and retention, respectively.

To date, much employee engagement research has been conducted by consulting firms. Owing to their proprietary status, these studies validating engagement models have yet to appear in refereed scientific journals. Most of this research is unavailable to detailed outsider scrutiny. Nevertheless, numerous linkage research studies have been published. Based on these studies, there is evidence that aggregated employee opinions relate fairly strongly to important business outcomes.[32] But does engagement cause business outcomes to improve? Are business units profitable because their employees are engaged, or are employees engaged because they work for profitable units?[33] Do they say they hope to remain indefinitely because they wish to stick with a winner? Recent evidence suggests that the causal direction is not so straightforward.[34] It is important to understand the cause-and-effect relationships involved given the considerable cost and effort associated with organizations' attempts to improve employee engagement. One way to determine the causal direction is to conduct research specifically designed to answer these important questions in your own organization.

A summary model (Figure 3) by Jack Wiley, cofounder of Gantz Wiley Research (now part of Kenexa) shows how employer leadership practices, employee results of those practices, customer results of leadership and work practices and business performance are interrelated.[35] The model is cyclical, showing that, over time, business performance also influences leadership practices. In addition, this model suggests particular variables within each factor that may affect employee engagement.

Figure 3 The High Performance Model



Aside from learning how engagement is affecting business results in your organization, surveying employee opinions and attitudes—in itself—can enhance engagement and commitment. For example, by asking employees for their opinions and then taking constructive action based on survey results, you signal that the organization values them and takes their feedback seriously. This enhances engagement. Surveying employees also reinforces a two-way employer-employee relationship, strengthening commitment to your firm.

Designing Engagement Initiatives: Guidelines to Consider

The HR practices discussed above—job design, recruitment, employee selection, training and development, compensation and performance management—are just some of the practices you can leverage to improve engagement and commitment in your organization. As you consider adopting or changing these practices, keep the following guidelines in mind.

Make Sound Investments
Think strategically about how your organization currently uses its human resource practices. Which of these merit greater investment to improve engagement or commitment? What's more important to your organization—employees who are engaged in their work, or those who feel a strong sense of commitment to the organization? Or are both equally important? How much is your organization willing to invest in specific HR practices designed to foster engagement, commitment or a combination of these?

Given your organization's objectives, in some cases you may want to use specific HR practices to foster engagement in work but not commitment to your organization. In others, your goal may be employee engagement and short-term commitment. In still others, it may be maximum engagement and long-term commitment. For example, if your HR strategy relies on increasing the use of contingent workers in order to cut costs and create more flexible staffing, you'll want to take steps to enhance not only contingent workers' engagement but also their short-term commitment. "Matching Engagement and Commitment Strategies to Business Conditions" shows additional examples.

Matching Engagement and Commitment Strategies to Business Conditions

If You Are Facing This Business Condition...	Change Your HR Practices In These Ways...	To Enhance...
Restructuring to flatter organization with broader job responsibilities	■ Align job/work design to new roles/responsibilities. ■ Recruit, select, train, compensate and manage accordingly. ■ Outsource or automate simple or routine work.	■ Engagement ■ Short-term commitment ■ Long-term commitment
Changing technology	■ If technology increases job complexity, train and compensate accordingly. ■ If technology simplifies work, enlarge jobs or outsource.	■ Engagement
Increasing customer focus, emphasis on quality	■ Recognize and reward voluntary contributions and proactive work behaviors. ■ Redefine performance expectations. ■ Provide supervisor/performance management support.	■ Engagement ■ Short-term commitment ■ Long-term commitment
Increasing reliance on contingent and contract workers	Core employees: ■ Increase job complexity and job security.	■ Engagement ■ Long-term commitment
	Contingent employees: ■ Emphasize pay-for-performance. ■ Provide results-based incentives. ■ Increase task identity.	■ Engagement ■ Short-term commitment
Broken employment contracts resulting from merger, acquisition or bankruptcy	■ Confront the question, Commitment to whom? ■ Earn credibility with realistic promises, avoiding promises that can't or won't be kept.	■ Engagement ■ Short-term commitment

Craft Compelling Business Cases for Improving Engagement and Commitment

To gain the funding needed to invest in engagement and commitment initiatives, you may need to apply your powers of persuasion. Creating a compelling business case for these initiatives can increase your chances of success. How might you make the business case for such investments to your supervisor or members of the executive team? Show how these investments have paid off for your organization or for other organizations by generating measurable business results. "Employee Engagement Drives Results at Intuit" and "Employee Engagement Drives Customer Satisfaction at a State Transportation Department" provide examples of effective business cases.

Employee Engagement Drives Results at Intuit [36]

Problem

Between 2003 and 2004, engagement levels among employees of Intuit's Contact Centers dropped significantly. These employees, who make up 40% of the company's workforce, provide service and assistance to customers. Intuit's engagement survey findings pointed to several areas for possible action.

Solutions

With understandable urgency, the company conducted a Six Sigma process analysis to identify the root causes of the engagement problem. Remedies initiated in 2004 targeted front-line leadership training, to provide supervisors with better coaching skills, and Intuit's performance measurement and incentive system, which the company revised to give employees greater flexibility in determining how to provide the best customer service.

Results

Within two years of implementing these initiatives, Contact Center engagement scores (percent favorable) increased by 16%. There was a corresponding steady increase in the number of new-business referrals by satisfied customers. Revenue growth for 2006 rebounded and grew to 15%-the best growth rate in four years. Intuit stock rose almost 300% over this period, outperforming the Dow Jones Industrial Average, the S&P 500 and the NASDAQ Composite.

Consider Unintended Consequences

In weighing options for redesigning HR practices to foster engagement and commitment, be sure to think about the possible unintended consequences that revised policies can bring. For example, suppose you want to add flextime to your organization's overall work policies. If employee demographics differ across business units (by age, gender and so forth), the new flextime policy may generate more engagement and commitment in units populated primary by, say, single parents with young children than in units with different demographics.

Keep in mind that employees are individuals. Each one may value something different about the organization's work experience and benefits. When you plan a change to your policies or benefits, take time to consider the impact of that change on employees with different life situations—married, single, older, children at home, childless and so forth. Then be sure the change is a net positive for the majority of your workforce. If you expect that some groups of employees will not like the change, be prepared to address this honestly and directly. If possible, consider making several changes at once that benefit different groups. That way no one will feel left out.

Employee Engagement Drives Customer Satisfaction at a State Transportation Department

Problem

A county highway maintenance unit of a state department of transportation was plagued with low morale and a disengaged workforce. At just 36% favorable (indicating very low engagement), scores on the annual employee engagement survey were among the lowest in the state. The department had recently begun a customer-focus initiative, and customer satisfaction scores for ride quality and road maintenance were falling in this county.

Solutions

The "old school" county manager retired. His successor, a former assistant manager in another county, was selected because he demonstrated skills in employee- and customer-focused management. He proved much more open than the previous manager in his communication with employees-inviting their participation in decision-making and encouraging teamwork. Employee survey scores for each of these dimensions steadily improved by more than 50 percentage points favorable over the next three years. The new manager also encouraged innovation. Scores on process improvements and use of new equipment and technology increased from 19% to 85% favorable.

Results

County employees responded well to the new management approach. Engagement scores showed steady improvement-from 36% favorable just before the change of manager to 84% favorable three years later. An important payoff was a corresponding increase in customer satisfaction, from 51% favorable to 66% percent favorable.

Ground Investment Decisions in Sound Data

It is important to ground decisions about engagement and commitment initiatives in sound data. Linkage research conducted within an organization yields customized advice that highlights specific HR practices likely to produce the best results. Outcomes of this research may include short lists of the highest-impact engagement levers and actionable survey items that differentiate top-performing units in your company from less successful units. "Linking Customer Satisfaction to Employee Opinions" shows an example.

To develop sound investment decisions, be sure to measure employee engagement at least once a year. Choose a survey consulting firm to adapt a standard engagement survey to your organization by linking survey items to the organization's performance measures, which support its business strategy. Performance measures may include profitability, productivity, efficiency, quality, safety, employee attendance, employee retention, customer satisfaction and customer loyalty—and may differ for each business unit depending on that unit's role in supporting the high-level organizational strategy.

Linking Customer Satisfaction to Employee Opinions

Employee Opinion Items Customer Service	Average 3 Best Units*		Store 2-1	
	Agree (% Positive)	Disagree (% Negative)	Agree (% Positive)	Disagree (% Negative)
In my work unit, a frequent topic of discussion is how well we satisfy our customers' needs.	62.7%	16.9%	27.6%	29.3%
My work unit responds to customer complaints by providing prompt resolution.	67.1%	26.1%	42.7%	21.0%
My work unit obtains reliable information about customer satisfaction.	64.8%	14.4%	22.7%	28.6%

*Average 3 Best Units: The 3 stores having the best Customer Satisfaction scores from Customer Pulse Survey.

At one retailer, employees at the three stores with the best customer satisfaction scores expressed different opinions in a survey than employees from other, lower-performing stores (e.g., Store 2-1). The differences in employee opinions across stores suggest differences in engagement levels and may stimulate ideas for changing workplace practices in stores with lower customer satisfaction scores.

For example, if your company's strategy calls for increasing customer loyalty, you might set a goal to raise employee retention in all customer-facing departments. Since longstanding employees are more likely to establish more enduring relationships with customers, it follows that they will provide higher-quality service. You also can create your own engagement survey. If you decide to go this route, include actionable survey items (topics over which management has some control) that explicitly link employee opinions to your organization's business objectives.

Using your engagement survey results, identify top levers of engagement and drivers of measurable results for each business unit. Determine which aspects of engagement are most important for business success. Then work with unit managers to create an Employee Engagement Action Plan for each unit. Determine ownership and accountability for each action item in these plans. "Owners" may include organizational policy and executive decision-makers, unit managers and team supervisors. Also identify the resources—personnel, time, funding, space, equipment—that you will need to put each plan into action.

Create an Engagement Culture

Establish a receptive foundation for your engagement initiatives by creating an "engagement culture." Communicate the value of employee engagement through your company mission statement and other executive communications. For example, look through the "Sample Mission Statements" from three different organizations, and think about how they emphasize the importance of engaged employees for organizational success. Follow up and ensure that all units execute their engagement action plans. Monitor progress on engagement-improvement efforts, and adjust your strategies and plans as needed. Equally important, be sure to recognize and celebrate progress and results.

Sample Mission Statements

Starbucks Coffee Company

Establish Starbucks as the premier purveyor of the finest coffee in the world while maintaining our uncompromising principles while we grow.

The following six guiding principles will help us measure the appropriateness of our decisions:

- Provide a great work environment and treat each other with respect and dignity.
- Embrace diversity as an essential component in the way we do business.
- Apply the highest standards of excellence to the purchasing, roasting and fresh delivery of our coffee.
- Develop enthusiastically satisfied customers all of the time.
- Contribute positively to our communities and our environment.
- Recognize that profitability is essential to our future success.

Source: http://www.starbucks.com/aboutus/environment.asp, October 12, 2006

Bright Horizons Family Solutions

The Bright Horizons Family Solutions mission is to provide innovative programs that help children, families and employers work together to be their very best.

We are committed to providing the highest-quality child care, early education and work/life solutions in the world.

We strive to:

- Nurture each child's unique qualities and potential.
- Support families through strong partnerships.
- Collaborate with employers to build family-friendly workplaces.
- Create a work environment that encourages professionalism, growth and diversity.
- Grow a financially strong organization.

We aspire to do this so successfully that we make a difference in the lives of children and families and in the communities where we live and work.

Source: http://www.brighthorizons.com/Site/pages/mission.aspx, October 12, 2006.

WD-40 Company

We are a global consumer products company dedicated to building brand equities that are the first or second choice in their respective categories.

Our mission is to leverage and build the brand fortress of WD-40 Company by developing and acquiring brands that deliver a unique high value to end users and that can be distributed across multiple trade channels in one or more areas of the world.

We strive to cultivate a learning culture based on our corporate values. We have a healthy discomfort with the status quo. We reward those who take personal responsibility in getting results to increase the profitability and growth of our business.

Source: http://www.wd40.com/AboutUs/our_philosophy.html, October 12, 2006.

Conclusion

Engaged employees can help your organization achieve its mission, execute its strategy and generate important business results. This report has highlighted ways in which different HR practices, including job design, recruitment, selection, training, compensation and performance management can enhance employee engagement. But these examples also show that employee engagement is more complex than it may appear on the surface. Organizations define and measure engagement in a variety of different ways, suggesting there is no one "right" or "best" way to define or stimulate engagement in your workforce. The decision to invest in strengthening engagement or commitment (or both) depends on an organization's strategy and the makeup of its workforce.

For these reasons, it is vital to consider your own organization's view of engagement, as well as its strategy and workforce composition when deciding which HR practices will receive scarce investment dollars. The research, guidelines and examples provided in this report—as well as the annotated bibliography—can help you begin to weigh the options and to craft an investment plan that will best suit your organization's unique circumstances.

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Sources and Suggested Readings

Work Engagement

Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology, 87*, 268-279.

This article summarizes findings linking employee engagement with business outcomes, including customer satisfaction and loyalty, profitability, productivity, employee turnover, and safety. It is important to examine business-unit-level relationships because it is at this level that employee survey data are typically used by organizations. Data aggregated to the business-unit level were provided by The Gallup Organization for 7,939 business units in 36 companies representing 21 industries. Engagement was measured by the 13-item Gallup Workplace Audit survey of aspects of work environments over which supervisors and managers have direct influence. Meta-analysis (a technique for analyzing results across individual studies) summarized engagement-outcome relationships across business units and companies. The results reveal that employee engagement relates to business-unit outcomes, with the strongest effects for employee turnover, customer satisfaction and safety. Productivity and profitability are more weakly related to engagement, probably because they are affected by many factors besides employee performance. Comparing business units across companies above the median on employee engagement to those below it reveals a business success rate (a composite measure of business outcomes) advantage of 103%, which equates to millions of dollars for large organizations.

Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal, 33*, 692-724.

Based on role theory and socialization research, a conceptual framework explains self-in-role processes by which people become psychologically present or absent in particular moments and episodes of work role performance. Engagement and disengagement are adaptive psychological mechanisms that protect against, respectively, isolation from and engulfment by social systems such as workplaces. Personal engagement refers to expression of one's preferred self (one's real identity, true thoughts and feelings) physically, cognitively and emotionally during role performances. Personal disengagement refers to withdrawal and defense of one's preferred self, removing or limiting oneself physically, cognitively and emotionally from role episodes. Participant observation and interview methodologies were used to study counselors at a summer camp for adolescents and employees of an architecture firm. Findings reveal that three psychological conditions influence engagement:

(1) meaningfulness (benefits arising from task characteristics, role characteristics and work interactions); (2) safety (minimizing risks to self-image, status and career arising from interpersonal relationships, group and intergroup dynamics, management style and process, and organizational norms); and (3) availability (of personal resources to fulfill role obligations free from distractions and preoccupations).

Employee Commitment

Abrahamson, M., & Anderson, W. P. (1984). People's commitments to institutions. *Social Psychology Quarterly, 47*, 371-381.

Following earlier work on peoples' commitments to multiple institutions in society, these authors examine the interconnections among these commitments as well as commitments as antecedents of a general sense of alienation. Focusing on broadly defined social institutions (economic, educational, familial, political, religious), a sample of adults was contacted by telephone on two occasions approximately 12 months apart and asked questions designed to indicate degree of commitment to each institution. Examples include "are you a dues-paying member of any school-related organization, like a PTA, PTO or alumni association" or "in a typical month, how often do you attend religious services?" Findings reveal that individuals' commitments to economic, educational and political institutions are interconnected, forming a set related to feelings of social alienation. Familial and religious commitments are inconsequential with respect to other commitments and unrelated to alienation. The importance of a specific commitment in the context of a person's multiple commitments is emphasized.

Becker, T. E., Billings, R. S., Eveleth, D. M., & Gilbert, N. L. (1996). Foci and bases of employee commitment: Implications for job performance. *Academy of Management Journal, 39*, 464-482.

This study examines relationships between employee commitment and job performance using a sample of recent business school graduates employed by numerous, mostly mid-sized companies. Previous research found little or no relationship between commitment to one's employer and performance. These authors distinguish between commitment to one's supervisor vs. employer and further differentiate commitment based on identification (adopting attitudes and behaviors to foster one's association with an individual or group) vs. internalization (adopting attitudes and behaviors congruent with shared values). As expected, internalized commitment to one's supervisor is positively related to overall prescribed job performance. Commitment to employer and commitment based on identification are unrelated to performance. These results suggest that commitments to entities closest to employees, such as supervisors and co-workers, have greater effects on performance than employer commitments.

Cohen, A. (2003). *Multiple commitments in the workplace: An integrative approach.* Mahwah, NJ: Lawrence Erlbaum Associates.

This in-depth review of the research literature on workplace commitment addresses the added value to theory and practice of a deeper understanding of multiple commitments and workplace behaviors. Rather than consider simultaneous commitments to individual entities separately, this book adopts an integrated multidimensional approach. Different forms of commitment are considered in some detail (e.g., to employer, career, job, work group, union), as are various theoretical models to explain them and their interrelationships. Research on relationships between commitments and work outcomes (e.g., employee turnover, absenteeism, job performance) is reviewed and summarized. Additional topics include commitments and nonwork domains and commitments in cross-cultural settings. Future research directions are suggested, and a helpful compendium of commitment survey instruments is appended.

Meyer, J. P., Becker, T. E., & Vandenberghe, C. (2004). Employee commitment and motivation: A conceptual analysis and integrative model. *Journal of Applied Psychology, 89,* 991-1007.

The authors propose an integrative framework that combines essential elements of theories of work motivation and employee commitment. They argue that commitment is one of several energizing forces for motivated behavior and that a better understanding of this relationship contributes to advances in research and practice. The forms of commitment (affective, normative and continuance commitment), as well as its foci (employer, supervisor, team, customers) and bases (identification, socialization and investments), are integrated into Locke's (1997) goal-based model of motivated work behavior. Goal regulation is proposed as a motivational mindset reflecting the reasons for a person's purposive behaviors. Influenced by a person's needs, values and commitments, goal regulation affects a person's choices of goals and, ultimately, behavior. The integrated model explicitly recognizes a distinction between discretionary and nondiscretionary behavior. Twelve theoretical propositions are provided.

Work Design

Fried, Y., & Ferris, G. R. (1987). The validity of the job characteristics model: A review and meta-analysis. *Personnel Psychology, 40,* 287-322.

The job characteristics model, developed in a series of studies in the 1970s by J. R. Hackman, E. E. Lawler, G. R. Oldham and others, postulates five motivational job characteristics that, when present, stimulate internal work motivation, performance and low absenteeism. This article reviews the results of nearly 200 studies testing this model and provides a meta-analysis of relevant data from 76

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of them. In particular, criticisms of the model raised by previous reviewers are considered. Consistent with the model, findings support the hypothesized relationships between the job characteristics of skill variety, task identity, task significance, autonomy and feedback and the psychological states of experienced work meaningfulness, experienced responsibility for outcomes and knowledge of results. Some support is found for the intervening role of psychological states between job characteristics and motivational and performance outcomes, although an additive combination of job characteristics is superior to the hypothesized multiplicative combination in relating to outcomes. Organizational context and magnitude of job changes are discussed as important factors in the job design-performance relationship.

Morgeson, F. P., & Humphrey, S. E. (in press). The Work Design Questionnaire (WDQ): Developing and validating a comprehensive measure for assessing job design and the nature of work. *Journal of Applied Psychology.*

The authors address the need for a broadly inclusive assessment instrument to describe work and jobs in today's economy. A thorough review of available instruments and studies of job design produced a list of 107 work characteristic terms. These were edited and sorted into 18 categories in three major groupings: 1) motivational characteristics, including autonomy, task variety, task significance, task identity, feedback from job, job complexity, information processing, problem solving, skill variety and specialization; 2) social characteristics, including social support, interdependence, interaction outside the organization and feedback from others; and 3) contextual characteristics, including ergonomics, physical demands, work conditions and equipment use. A questionnaire includes at least three items for each topic and a five-point "strongly disagree" to "strongly agree" response scale. Validation research is presented with data gathered from 540 job incumbents holding 243 distinct jobs. Measurement properties of the instrument were determined to be sound. The findings that task and knowledge work characteristics relate to job satisfaction and that social support adds to satisfaction beyond these characteristics suggest that engagement in work can be fostered through multiple avenues of job design.

Voluntary Work Performance

Borman, W. C., & Motowidlo, S. J. (Eds.). (1997). Organizational citizenship behavior and contextual performance [Special issue]. *Human Performance, 10*(2).

This special issue includes an introduction by W. C. Borman and S. J. Motowidlo to two classes of voluntary work behaviors, organizational citizenship behavior (OCB) and contextual performance, plus seven theoretical review and research articles.

- S. J. Motowidlo, W. C. Borman and M. J. Schmit [A theory of individual differences in task and contextual performance, pp. 71-83] describe a theory of job performance that differentiates contextual performance (work activities that support the organizational, social and psychological environment of a job rather than the core tasks of the job) from task performance, using a behavioral episode perspective to argue that knowledge, skills, work habits and personal traits associated with the former differ in important ways from those associated with the latter.
- D. W. Organ [Organizational citizenship behavior: It's construct clean-up time, pp. 85-97] provides a conceptual paper on the importance of OCB and contextual performance in modern organizations with broadly defined jobs. He considers the similarities and differences among related terms such as discretionary and extra-role performance and concludes that OCB and contextual performance are synonyms.
- W. C. Borman and S. J. Motowidlo [Task performance and contextual performance: The meaning for personnel selection research, pp. 99-109] describe how distinctions between contextual and task performance can advance the science of personnel selection and the prediction of individual job performance.
- L. A. Penner, A. R. Midili and J. Kegelmeyer [Beyond job attitudes: A personality and social psychology perspective on the causes of organizational citizenship behavior, pp. 111-131] offer a conceptual model that distinguishes short- and intermediate-term episodes of OCB from long-term enduring OCB. Short-term OCB episodes are influenced by one's personality, particularly prosocial orientation, by particular motives to engage in the specific behavior and by moods and job attitudes. Engaging in OCB episodes, in turn, affects one's role identity as an organizational citizen. One's identity as a good citizen causes enduring OCB.
- P. M. Podsakoff and S. B. MacKenzie [Impact of organizational citizenship behavior on organizational performance: A review and suggestions for future research, pp. 133-151] examine the relationship between OCB and effectiveness of work groups and organizations. They conclude that the altruistic helping dimension of OCB has the greatest effect on organizational success. They suggest a typology of in-role and extra-role behaviors and call for additional research on this important topic.
- J. M. George and G. R. Jones [Organizational spontaneity in context, pp. 153-170] consider the effects of organizational context on spontaneity and other aspects of contextual performance. Context provides both opportunities for and constrains upon these behaviors. Contextual influences are examined at the individual (e.g., skill level, self-efficacy, role definitions), work group (e.g., group norms, task interdependence, goals), organizational (e.g., structure, poli-

cies, reward systems) and interorganizational (e.g., competitive pressures to adopt similar practices such as quality and customer focus) levels.

- C. Speier and M. Frese [Generalized self-efficacy as a mediator and moderator between control and complexity at work and personal initiative: A longitudinal field study in East Germany, pp. 171-192] study relationships among control, job complexity, work-related self-efficacy and personal initiative at work. Findings highlight the important part played by self-efficacy in the working conditions—the part of initiative relationship. Initiative levels of those who are higher in self-efficacy are less affected by working conditions than initiative levels of those who are lower in self-efficacy.

Organ, D. W. & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology, 48*, 775-802.

The concept of organizational citizenship behaviors (OCBs) was introduced to the research literature in 1983. OCBs are voluntary contributions at work that include altruistic helping behaviors, compliance with work norms and requirements, courtesy to others to ensure smooth working relationships, sportsmanship to maintain performance under adversity, and civic virtue to contribute constructively to issues that arise in the workplace. This article provides a meta-analysis of 55 studies of the relationships between work attitudes, personality and OCBs. Whereas pervious research established that job satisfaction is only weakly related to prescribed task performance, these authors test the hypothesis that work attitudes are more strongly related to voluntary performance than to prescribed performance. Findings show that job satisfaction relates more strongly to OCBs than to prescribed performance, as expected, although it appears that this is mainly true for nonmanagerial, nonprofessional employees. The authors' expectations that other work attitudes such as perceived fairness and emotional commitment relate more strongly than job satisfaction to OCBs were not supported. They speculate that there may be a general "morale" or engagement factor that accounts for the observed attitude-OCB relationships. They also hypothesize that personality measures are more strongly related than work attitudes to OCBs. This hypothesis received only minimal support: the personality dimension of conscientiousness relates to the OCB dimension of compliance. The authors call for more research on the relationship between OCBs and organizational effectiveness.

Parker, S. K., Williams, H. M., & Turner, N. (2006). Modeling the antecedents of proactive behavior at work. *Journal of Applied Psychology, 91*, 636-652.

This article distinguishes between active and passive dimensions of work behaviors. Proactive work behaviors occur when employees use their initiative and are self-starters, particularly in implementing new ideas and problem solving to improve upon current circumstances. People may be proactive with respect to prescribed tasks and voluntary contributions in the workplace. Passive work behaviors include routine task performance and compliance with rules and procedures. The authors tested a model using questionnaire data gathered from 282 production employees of a wire-based manufacturer. Results show that proactive personality and job autonomy influence flexible role orientation (defining one's work roles broadly, being willing to take ownership of challenges beyond immediate assigned tasks) and role breadth self-efficacy (one's perceived capability to engage in proactive work behaviors beyond those specifically prescribed), and these in turn foster proactive work behaviors. Job autonomy also directly influences proactive behaviors. Co-worker trust influences proactive behaviors via flexible role orientation. Emotional commitment links to general compliance, but not to proactive behaviors. The authors conclude that a proactive workforce may be obtained by recruiting employees with proactive personalities and by redesigning jobs to promote flexible role orientations and role breadth self-efficacy.

Linkage Research

Brooks, S. M., Wiley, J. W., & Hause, E. L. (2006). Using employee and customer perspectives to improve organizational performance. In L. Fogli (Ed.), *Customer service delivery: Research and best practices* (pp. 52 – 82). San Francisco, CA: Jossey-Bass.

The message of this chapter is that business results are achieved through management of work practices guided by measurement of employee and customer data. Employees, in responding to opinion surveys, serve as observers and reporters of these practices. Linkage research is the mechanism that combines information about work practices with customers' reactions to and evaluations of these practices. The high-performance model summarizes links in the chain from leadership through work practices to customer experiences and ultimately to business results and reveals characteristics of high-performance organizations. The chapter concludes with advice for integrating linkage research with strategic organizational development to achieve superior performance.

Dietz, J., Pugh, S. D., & Wiley, J. W. (2004). Service climate effects on customer attitudes: An examination of boundary conditions. *Academy of Management Journal, 47*, 81-92.

The article investigates two boundary conditions (factors that determine degree of influence) of business service climate and their effects on customers' evaluations of service in 160 branches of a regional bank. The first boundary condition is proximity. A distinction is made between the service policies of the bank (general guidelines for practice promoted from distant headquarters) and actual service practices that play out in branches at the point of contact with customers.

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Branch employees reported both bank-level and branch-level service climate. The second boundary condition is frequency of contact with customers. A survey asked customers to estimate the number of interactions they had with tellers and personal bankers over the previous six months. Findings are that (a) service climate at the local branch level, not the bank level, influences customers' experiences of service, and (b) positive service climates have their greatest effects for the most frequent customers. Although it is tempting to infer from these results that quality of the service encounter is determined by local management practices and that quality of the service encounter determines customer satisfaction and business results, the authors note that surveys do not measure actual service episodes and it remains for future research to directly establish these links.

Ryan, A. M., Schmit, M. J., & Johnson, R. (1996). Attitudes and effectiveness: Examining relations at an organizational level. *Personnel Psychology, 49,* 853-882.

This study of employee attitudes as they relate to several types of performance measures was conducted using data gathered over a two-year period from 142 branches of an automobile finance company. Performance measures include 10 productivity and operating efficiency measures (e.g., total dollar profit, market share, controllable operating costs), customer satisfaction (a single survey question rating overall satisfaction with service) and annual employee turnover. Data modeling with two time periods permits tests of causal relationships, asking whether employee attitudes determine branch performance or the reverse. Findings are that employee attitudes show generally small relationships to productivity, that customer satisfaction is more likely to cause employee attitudes than the reverse and that employee attitudes relate to turnover. Although these effects are modest in magnitude, the authors note that differences in turnover and productivity between the top and bottom employee-attitude branches translate into substantial sums of money. They call for future research on the specific mechanisms by which employee attitudes relate to business unit performance.

Schneider, B., Hanges, P. J., Smith, B., & Salvaggio, A. N. (2003). Which comes first: Employee attitudes or organizational financial and market performance? *Journal of Applied Psychology, 88,* 836-851.

The question of whether employee attitudes lead to organizations' financial results or vice versa was examined using data gathered over an eight-year period from 35 companies. Although most previous research simply assumed that the direction of causality is from employee attitudes to organizational performance, few studies actually test this assumption. Analyses reveal that two attitudinal dimensions—satisfaction with security and overall job satisfaction—are more strongly influenced by previous organizational performance as measured by return on assets (ROA) and earnings per share (EPS) than the reverse. Satisfaction

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with pay shows reciprocal relationships with both ROA and EPS. The authors offer a model to suggest how high-performance work practices could affect these dynamic relationships.

Schneider, B., Parkington, J. J., & Buxton, V. M. (1980). Employee and customer perceptions of service in banks. *Administrative Science Quarterly, 25*, 252-267.

This article is one of the first to examine business-unit-level correlations between employee perceptions and customer evaluations of business performance. It established the line of research that was later labeled *linkage research*. The sample includes employees and customers of 23 branches of a regional bank. The rationale for the study was that branch employees are boundary-spanners, interacting with external customers to achieve the goals of the organization. In that role, they are uniquely positioned to report business practices that influence customer outcomes. Findings support this hypothesis, showing a strong overall correlation (.67) between employee and customer evaluations of overall branch business practices. Employees and customers generally agree as to which branches are most and least effective in serving customer needs. Correlations between specific facets of these practices reveal the potential to rectify performance deficiencies. By virtue of a thorough description of methodology, these authors provide a step-by-step guide to conducting a linkage study.

Schneider, B., White, S. S., & Paul, M. C. (1998). Linking service climate and customer perceptions of service quality: Test of a causal model. *Journal of Applied Psychology, 83*, 150-163.

This study of employees and customers of 134 branches of a large bank tests a model linking branch climate for service to customer evaluations of service quality. The model proposes that service climate is a product of human resource *foundation issues*—contextual factors, such as training, managerial practices or assistance of co-workers, that sustain and support individual work performance. This model is tested with structural equation modeling, a sophisticated analytic technique that tests relationships among several variables simultaneously. Survey data were gathered from samples of employees and customers over a four-year period—a method that permits tests of directional causality: does service climate determine service quality, does service quality determine service climate, or do these factors have reciprocal (two-way) influences? Findings show that service climate is determined by foundation issues of work facilitation and inter-departmental service and by specific service policies and practices. Examined over time, reciprocal relationships show that customer evaluations at time 2 were affected by branch climates for service at time 1 and branch climates for service at time 2 were affected by customer experiences at time 1. The importance of measuring and using customer feedback to improve work practices is highlighted.

Changing Work

Cappelli, P. (1999). *The new deal at work: Managing the market-driven workforce.* Boston, MA: Harvard Business School Press.

This book addresses implications for effective practices in managing employees of organizational restructuring over the last 20 years of the 20th century. It builds upon earlier work by Cappelli and others (*Change at Work*, 1997) that examined trends in workplaces changes and employment relationships. It places recent trends in historical context, with particular attention to forces that shaped both the "traditional" employment model and today's variations on it. Cappelli argues that a fundamental shift has occurred, such that workers today are more likely to bear the risks of the marketplace in the form of job insecurity, performance-contingent pay, limited duration contractual employment, etc. The book explores ways in which employers can effectively adapt to and cope with this "new deal at work."

Cappelli, P., Bassi, L., Katz, H., Knoke, D., Osterman, P., & Useem, M. (1997). *Change at work.* New York: Oxford University Press.

This book is the product of a study that examines recent trends in workplace changes, with particular attention to their effects on employees, employers and employment relationships. In the mid-1990s, there was much attention in the media to topics like corporate restructuring and downsizing, high-performance work systems and a purported "skills gap" between demanding technical job requirements and an educational system that failed to provide a workforce with the needed skills. The authors responded to media hype with systematic research addressing organizational restructuring, downsizing, the use of contingent employees, changes in the organization of work within companies, employer-provided training and skill development, the purported skills gap, and implications of these trends for future employment relationships.

Howard, A. (Ed.). (1995). *The changing nature of work.* San Francisco, CA: Jossey-Bass Publishers.

Written in response to fundamental transformations in work and workers in the post-industrial era, this book provides detailed analyses of topics such as job design, technology, labor relations, skill development, personnel selection, psychological contracts, performance appraisal and leadership.

Ilgen, D. R., & Pulakos, E. D. (Eds.). (1999). *The changing nature of performance: Implications for staffing, motivation, and development.* San Francisco, CA: Jossey-Bass Publishers.

This book examines the effect of technological, social and economic forces on how work is done and organized. The focus is on employee performance—how it is defined, measured and managed by human resource systems. The authors consider seven trends affecting performance (technology and jobs, design of jobs, contingent workers, continuous learning, customer focus, leadership and supervision, and team work). The authors address effective human resource practices in the areas of staffing, motivation and employee development in light of these trends.

National Research Council. (1999). *The changing nature of work: Implications for occupational analysis.* Committee on Techniques for the Enhancement of Human Performance: Occupational Analysis. Washington, DC: National Academy Press.

This volume provides a framework for understanding changes in work and organizations in the last years of the 20th century and their implications for systems used to describe and categorize work, workers and employment relationships. Major trends identified and discussed include increasing demographic diversity, changing markets and globalization, changing technology, blurring of distinctions among jobs, and increasing choices in organizational design. The need for an integrated, systematic approach to analyzing work is recognized. The potential of the U.S. Department of Labor's O*NET™ occupational information system is evaluated favorably. The U.S. Army is offered as a case study. Although different from private sector companies and other government agencies in important ways, the Army nevertheless is affected by many of the same societal trends.

General References

Barnett, R. C., & Hyde, J. S. (2001). Women, men, work, and family: An expansionist theory. *American Psychologist, 56,* 781-796.

The authors of this theoretical article argue that the lives of U.S. women and men changed dramatically over the second half of the 20th century with respect to levels of workforce participation, education, income and gender, work and family roles. However, these changes were not accompanied by revisions to the dominant theories driving research in these areas (functional theories of gender-role specialization, psychoanalytic theories of personality development based on gender differences and sociobiological theories predicated on reproductive fitness explanations for gender differences), in spite of a dearth of empirical evidence supporting these theories. The authors propose an "expansionist" theory with four principles. These include (1) multiple roles are beneficial for women and men concerning psychological, physical and relationship health—strong commitments to work and family roles can be mutually congruent; (2) beneficial effects of multiple roles stem from such factors as buffering of stressors across roles, added income, social support and opportunities for success; (3) benefits of multiple roles depend on role quality, not number of roles or time devoted to each; (4) psychological gender differences are not large or immutable so as to force women and men into highly differentiated roles.

Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist, 41,* 954-969.

This theoretical article combines elements of cognition (rational beliefs) and motivation in proposing that people hold ideas about their future possible selves. These include selves one hopes to become (e.g., successful, creative, rich), selves one could become and selves one is afraid of becoming (e.g., depressed, unemployed, homeless). Beliefs about possible selves spring from deep-seated goals, aspirations, motives and fears. These are often quite vivid—a thinner self, for example, is imagined as more attractive, happier, more vivacious. Possible selves act as incentives for behaviors (selves to strive to become), they provide context and meaning to those behaviors ("I will spend the next two years pursuing a master's degree in order to…"), they are influenced by one's social milieu (by role models, one's own past achievements, comparisons to others), and they guide role-taking and other future-oriented actions. The article discusses relationships between one's "core self" (self-concepts that are chronically accessible and central, such as major roles, group memberships and ascribed characteristics) and possible selves. Possible selves are advantageous to the individual because, in comparing current and hoped-for selves, they stimulate personal growth and development.

Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology, 87,* 698-714.

Perceived organizational support is defined as employees' general beliefs that their employers value their contributions and care about their well-being. Whereas employers value employee dedication and loyalty, employees are more concerned with their employers' reciprocal commitments to them. This review summarizes the findings of 70 studies about the relationship of treatment received by employees to their perceptions of organizational support, and the benefits of supportive treatment in terms of job satisfaction, employer commitment, job performance and intentions to remain with an employer. Meta-analysis supports the theory that (a) perceived organizational support is greater when employees believe that their employers' supportive actions are discretionary; (b) supportive actions by employers instill obligations to reciprocate in the form of stronger emotional bonds to the employer and contributions of proactive work behaviors; and (c) procedural fairness in amount and distribution of organizational resources and a supportive supervisor encourage employees to personify their employers, viewing employers as entities that regard them favorably.

Rousseau, D. M. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements.* Thousand Oaks, CA: Sage Publications.

This book adopts a behavioral perspective to address the fundamental roles that contracts play in organizations. Contracts can be placed on a continuum from formal written to informal unwritten agreements covering employment, termination, product warranties, supplier relationships, corporate mission statements, partner relationships and others. The observation that all contracts are incomplete to some degree and must be interpreted leads to consideration of psychological contracts (individual beliefs regarding terms of exchange relationships with employers), social contracts (collective group belaviors and reciprocal obligations) and their implications for organizations

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Working Capital Offset Calculation
CAP Credits

Without CAP

	Current	1-30	31-60	61-90	91-120	121+	Total
				Arrears			
CAP Credit	$100						
Number of participants	1						
Incremental Age (30 + mid-point)	10	35	65	95	125	130	
Total current bill	$100	$100	$100	$100	$100	$100	
Percent low-income bills in arrears (BCS)	18.5%						
% of Arrears		*26%*	*20%*	*14%*	*6%*	*33%*	
Total bill minus percent bills in arrears by aging	81.5%	4.8%	3.7%	2.6%	1.1%	6.2%	
Unpaid from current bill	$82	$5	$4	$3	$1	$6	
Request Rate of Return	8.17%	8.17%	8.17%	8.17%	8.17%	8.17%	
Grossed up ROR	14.20%	14.20%	14.20%	14.20%	14.20%	14.20%	
Daily Return (GUFT)	0.0389%	0.0389%	0.0389%	0.0389%	0.0389%	0.0389%	
Working capital	$0.32	$0.07	$0.09	$0.10	$0.05	$0.31	$0.94
Working Capital Saivngs per $100 Bill	0.32%	0.07%	0.09%	0.10%	0.05%	0.31%	0.94%

Revenue Conversion Factor 1.738224

With CAP

	Current	1-30	31-60	61-90	91-120	121+	Total
Current bill	$100						
Incremental Age (30 + mid-point)	10	35	65	95	125	130	
Number of participants	1						
Total current bill	$100	$100	$100	$100	$100	$100	
Percent residential bills in arrears (1 minus coverage)	4.4%						
% of Arrears		36%	20%	13%	5%	26%	
Total bill minus percent bills in arrears by aging	95.6%	1.6%	0.9%	0.5%	0.2%	1.2%	
Unpaid from current bill	$96	$2	$1	$1	$0	$1	
Request Rate of Return	8.17%	8.17%	8.17%	8.17%	8.17%	8.17%	
Grossed up ROR	14.20%	14.20%	14.20%	14.20%	14.20%	14.20%	
Daily Return (GUFT)	0.0389%	0.0389%	0.0389%	0.0389%	0.0389%	0.0389%	
Working capital	$0.37	$0.02	$0.02	$0.02	$0.01	$0.06	$0.50
Working Capital Saivngs per $100 Bill	0.37%	0.02%	0.02%	0.02%	0.01%	0.06%	0.50%

Revenue Conversion Factor *1.738224*

Wkg cap as pct of bill: no CAP	0.94%
Wkg cap as pct of bill: with CAP	0.50%
CAP credit working capital savings	0.44%

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Working Capital Offset Calculation
Pre-Program Arrearage

Without CAP

	Current	1-30	31-60	61-90 (Arrears)	91-120	121+	Total
CAP Credit	$100						
Number of participants	1						
Incremental Age (30 + mid-point)	10	35	65	95	125	130	
Total current bill	$100	$100	$100	$100	$100	$100	
Percent low-income bills in arrears (BCS)	100.0%						
% of Arrears		26%	20%	14%	6%	33%	
Total bill minus percent bills in arrears by aging	0.0%	26.1%	20.3%	14.3%	6.0%	33.3%	
Unpaid from current bill	$0	$26	$20	$14	$6	$33	
Request Rate of Return	8.17%	8.17%	8.17%	8.17%	8.17%	8.17%	
Grossed up ROR	14.20%	14.20%	14.20%	14.20%	14.20%	14.20%	
Daily Return (GUFT)	0.0389%	0.0389%	0.0389%	0.0389%	0.0389%	0.0389%	
Working capital	$0.00	$0.36	$0.51	$0.53	$0.29	$1.69	$3.37
Working Capital Savings per $100 Bill	0.00%	0.36%	0.51%	0.53%	0.29%	1.69%	3.37%

Revenue Conversion Factor 1.738224

With CAP

	Current	1-30	31-60	61-90	91-120	121+	Total
Current bill	$100						
Incremental Age (30 + mid-point)	10	35	65	95	125	130	
Number of participants	1						
Total current bill	$100	$100	$100	$100	$100	$100	
Percent residential bills in arrears (1 minus coverage)	4.4%						
% of Arrears		36%	20%	13%	5%	26%	
Total bill minus percent bills in arrears by aging	95.6%	1.6%	0.9%	0.5%	0.2%	1.2%	
Unpaid from current bill	$96	$2	$1	$1	$0	$1	
Request Rate of Return	8.17%	8.17%	8.17%	8.17%	8.17%	8.17%	
Grossed up ROR	14.20%	14.20%	14.20%	14.20%	14.20%	14.20%	
Daily Return (GUFT)	0.0389%	0.0389%	0.0389%	0.0389%	0.0389%	0.0389%	
Working capital	$0.37	$0.02	$0.02	$0.02	$0.01	$0.06	$0.50
Working Capital Savings per $100 Bill	0.37%	0.02%	0.02%	0.02%	0.01%	0.06%	0.50%

Revenue Conversion Factor 1.738224

Wkg cap as pct of bill: no CAP	3.37%
Wkg cap as pct of bill: with CAP	0.50%
CAP credit working capital savings	2.87%