

# The Research Credit from Soup to Nuts:

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## What is the Research Credit?

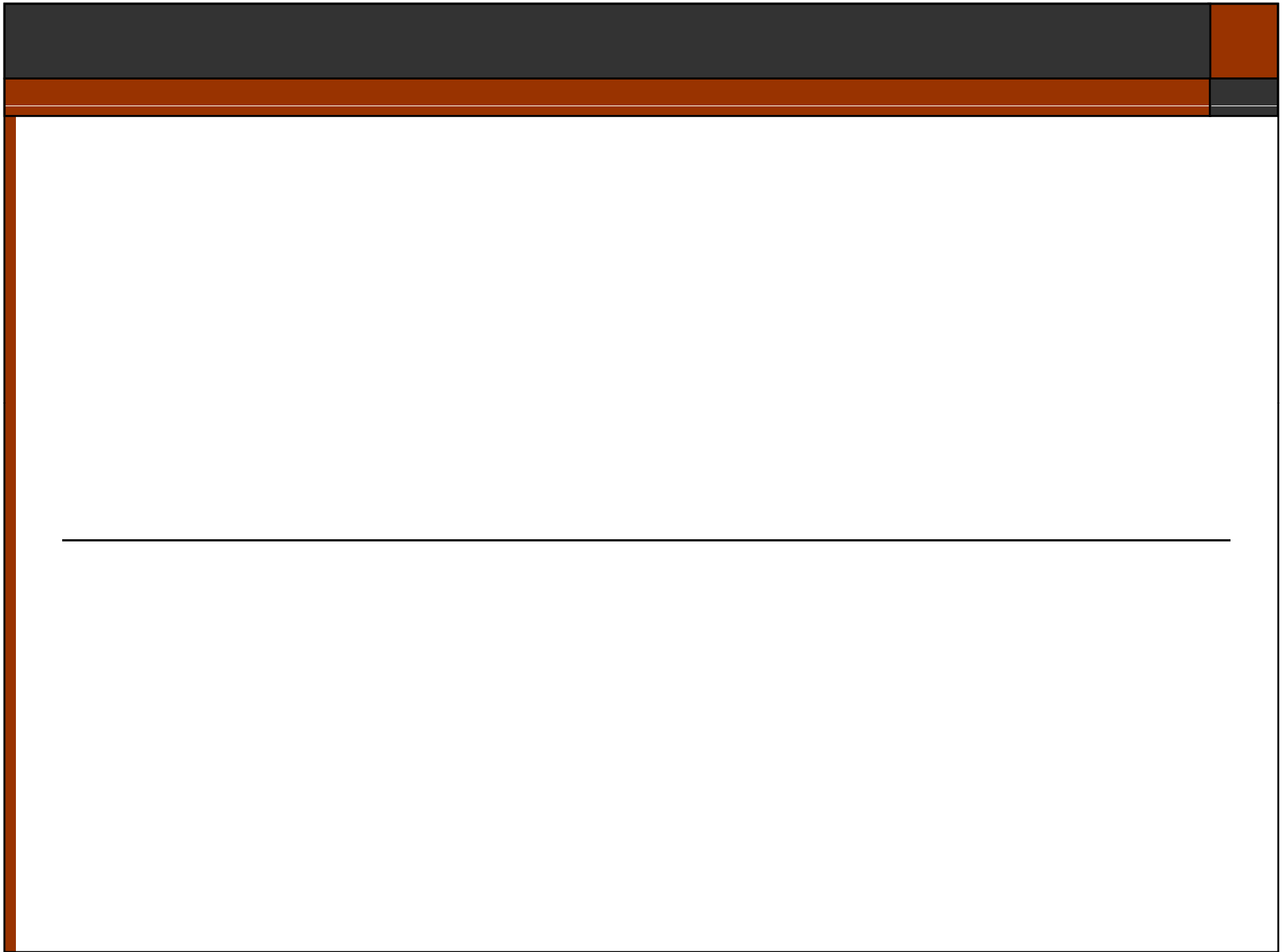
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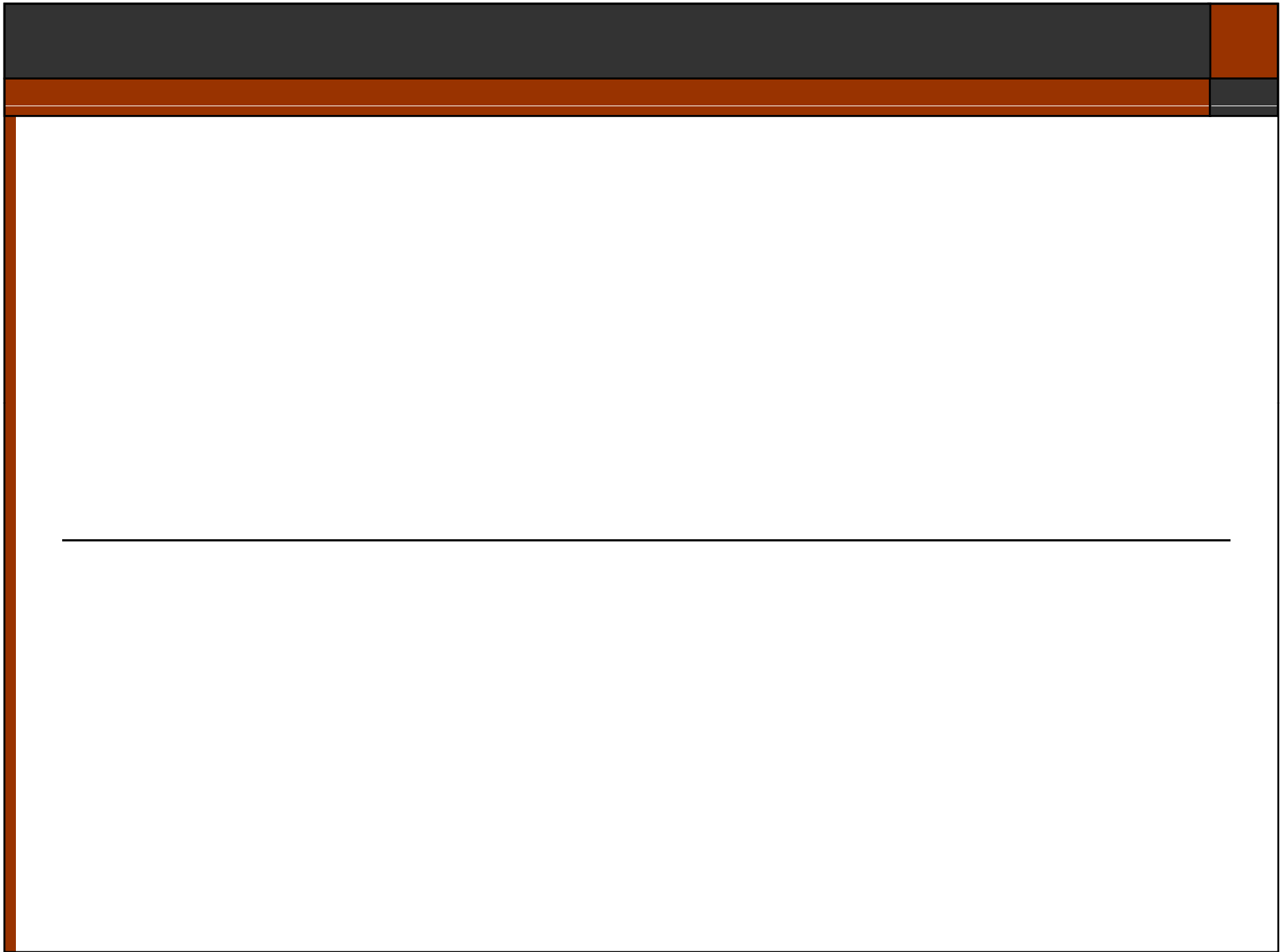
- A nonrefundable credit against income tax provided under Code section 41.
- Expired 12/31/11, but expected that the credit will be retroactively extended through and beyond 2012.
- Taxpayers may elect between two forms of credit.
  - Regular credit – 20% (or 13%) of excess of current-year QREs over a “base amount”
  - Alternative simplified credit (ASC) – 14% of excess of current-year QREs over average in prior 3 years

# Statistics

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- In 2009:
  - 12,359 taxpayers claimed \$7.7 billion in research credits.
  - Taxpayers with receipts between \$10 and \$50 million claimed the credit most frequently (2,638).
  - Businesses with receipts over \$250 million (1,686) accounted for \$6.4 billion (82%) of the total credits claimed.
  - 63% of claims originated out of 5 states (CA, NY, NJ, MI, and TX) and 6 industries (high-tech, manufacturing, pharmaceutical, media, automotive, and oil and gas).







## Legislative Purpose

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- “The committee believes that a substantial tax credit for incremental research and experimental expenditures will **overcome the resistance of many businesses** to bear the significant costs of staffing, supplies, and certain computer charges which must be incurred in initiating or expanding research programs.” (1981 Senate and H.R. Reports)
- “The committee did wish, however, to **retain an incremental credit structure** in order to maximize the credit’s efficiency by not allowing (to the extent possible) credits for research that would have been undertaken in any event.” (1989 H.R. Report)



## Future of the Research Credit

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- Obama Administration's February 2012 framework for tax reform
  - Make research credit permanent
  - Increase ASC rate from 14% to 17%
- But negotiations over tax reform and balancing budget create uncertainty.



## Research Credit Determination Process

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- Determine qualified research activities
  - I.R.C. § 41(d); Treas. Reg. § 1.41-4
- Determine qualified research expenses (“QREs”)
  - I.R.C. § 41(b); Treas. Reg. § 1.41-2
- Calculate the regular credit or ASC
  - I.R.C. § 41(c); Treas. Reg. §§ 1.41-3, -6, and 9
- Substantiate entitlement to the credit
  - I.R.C. § 6001; Treas. Reg. § 1.41-4(d)





## Qualified Research – 4 Primary Tests

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- Section 174 test
- Technological in nature test
- Business component test
- Process of experimentation test

I.R.C. § 41(d)(1)(A)-(C); Treas. Reg. § 1.41-4(a).



## Section 174 Test

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- Expenditures must be eligible for treatment as “research or experimental” expenditures under section 174.
- Two requirements:
  - Uncertainty exists over **capability** or **method** for developing or improving a product (or process) or the **appropriate design** of the product (or process).
  - The activity is intended to discover information to eliminate the uncertainty.
- Does not require that the technology be in the very beginning stages of development, only that the taxpayer be uncertain that the technology will improve its product (or process).
- Highly fact-intensive inquiry (*Union Carbide*)

*Union Carbide Corp. v. Comm’r*, 2012 WL 3870863 (2d Cir. Sept. 7, 2012), *aff’g* 97 T.C.M. (CCH) 1207 (2009)

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## *Union Carbide* – Section 174 Test (Amoco Project)

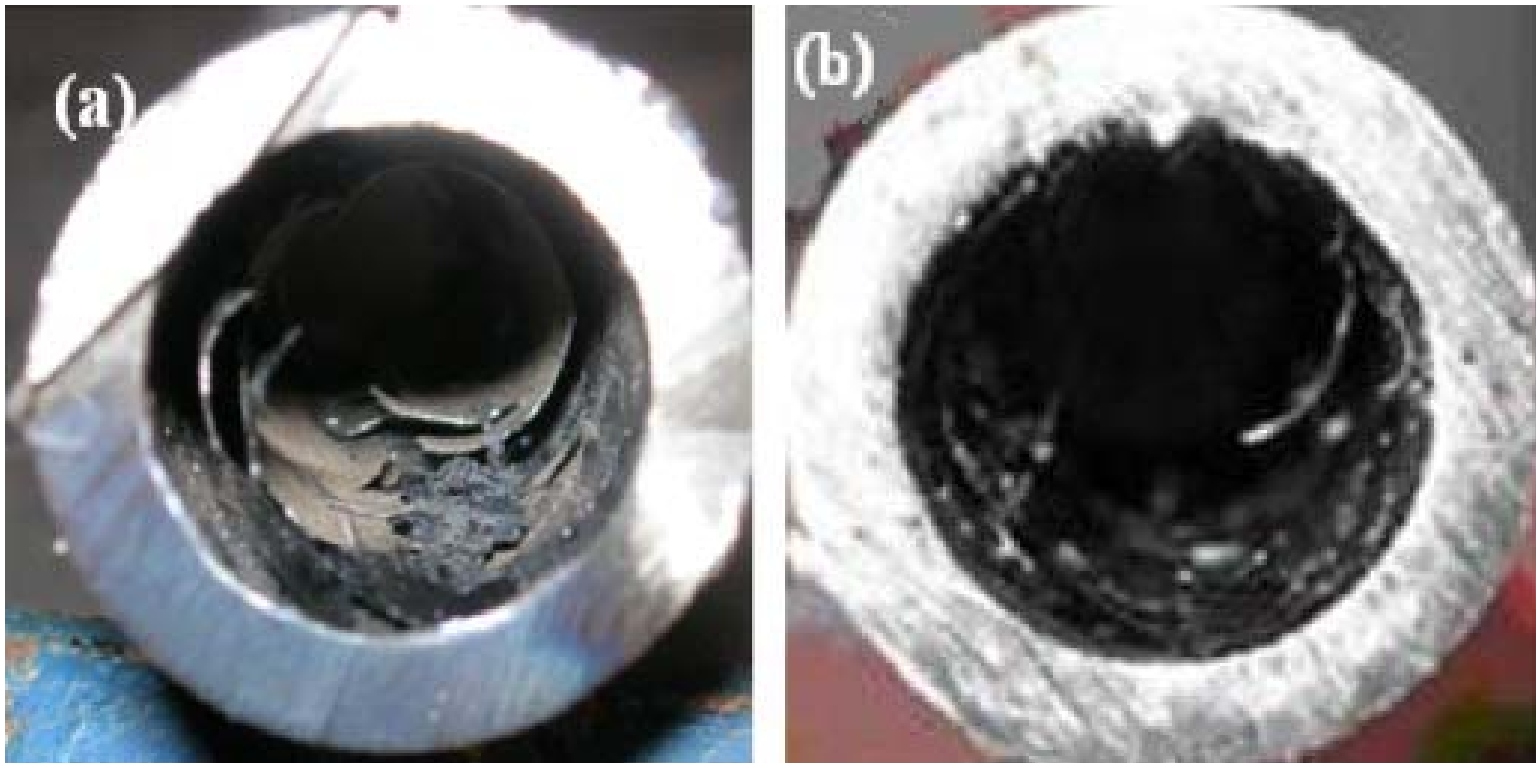
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## *Union Carbide – Section 174 Test (Amoco Project)*

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## *Union Carbide* – Section 174 Test (UOP GA-155 Project)

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# Union Carbide – Section 174 Test (UOP GA-155 Project)

**NALCO** Petrochemical, Process & Water Solutions

**Light Ends Section**

The process of steam cracking produces a range of hydrocarbon products which must be separated into fractions; ethane, ethylene, propane, propylene, etc. This separation is accomplished using distillation principles. Accordingly, these normally gaseous species must first be liquefied in order to perform the distillation. Following the separation of the lowest molecular weight by-products, hydrogen and methane, the subsequent distillation processes proceed at temperatures that are greater than ambient temperatures.

**Fouling Control**  
**Depropanizer Tower Fouling**

BACK TO MAIN MAP

From Primary Fractionator & QW Settler



## Technological in Nature and Business Component Tests

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- Information is “technological in nature” if it “fundamentally relies on principles of the physical or biological sciences, engineering, or computer sciences.” Treas. Reg. § 1.41-4(a)(4).
- The research must relate to a new or improved function of a business component of the taxpayer, or to its performance, reliability, or quality.
  - A “business component” is any “product, process, computer software, technique, formula or invention” which is to be either held for sale, lease, or license, or used in the trade or business of the taxpayer. I.R.C. § 41(d)(2)(B).



## Process of Experimentation Test

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- “Substantially all” (*i.e.*, at least 80%) of the research activities must constitute elements of a process of experimentation.
- Per Treas. Reg. § 1.41-4(a)(5), the core elements of a POE are:
  - Identification of uncertainty concerning development or improvement of a business component;
  - Identification of alternatives to eliminate uncertainty; and
  - Conduct of a process of evaluating the identified alternatives.
- “[T]he project must involve a **methodical plan** involving a series of trials to test a hypothesis, analyze the data, refine the hypothesis, and retest the hypothesis so that it constitutes experimentation in the scientific sense.”  
*Union Carbide*, 97 T.C.M. (CCH) at 1256.
- Highly fact-intensive inquiry

## Process of Experimentation Test – Recent Cases

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### ■ Sodium borohydride project in *Union Carbide*

- “There is no evidence to support UCC’s assertion that it actually analyzed the data it collected beyond determining that sodium borohydride reduced acetaldehyde below 100 ppm .... UCC’s data collection alone, no matter how extensive, does not constitute a process of experimentation if it is not followed by meaningful analysis.” 97 T.C.M. (CCH) at 1262.
- Affirmed on appeal. 2012 WL 8370863, \*5 (2d Cir. Sept. 7, 2012).

### ■ Dirty oil barge project in *Trinity Industries*

- “The OPA90 requirements of a double hull and greater stability essentially made the dirty oil barge an all-new design from the hull up. The Court finds that more than 80% of the costs incurred in developing the dirty oil barge were part of a process of experimentation.” 691 F. Supp. 2d 688, 695 (N.D. Tex. 2010).

## Special Rules for Applying Primary Tests

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- The primary qualified research tests “shall be applied separately with respect to each business component of the taxpayer.” I.R.C. § 41(d)(2)(A).
- Per IRS, this requires taxpayers to establish “nexus” between costs and activities.
- *Bayer Corp. v. United States* (W.D. Pa.)
  - 17 credit years, 49 locations, and \$6 billion in QREs from 1,300 cost centers
  - February 2012 ruling (2012 WL 393469)
    - ❖ “Bayer’s identification of all business components generating QREs during the credit years is critical to proving its refund claim.”
    - ❖ “[A] sampling plan that would not identify all of the business components underlying the claimed QRE credits is not acceptable in the absence of agreement by the Government.”
  - September 2012 ruling (2012 WL 4339554)
    - ❖ “[T]he Government will not be permitted to demand a list of business components for the first time in this Court and then object based on the substantial variance rule to Bayer’s need to gather significant, additional evidence to comply with the demand when the QRE credits underlying Bayer’s refund claim have not changed.”



## Recent Research Credit IDR

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Provide the following information:

- a. Identify and list each new or improved business component for which the QREs are being claimed.
- b. For each business component identified in item a., provide the QRE wages by employee, the QRE supplies, and the contract QREs by contract, and reconcile the QREs by business component to the total QREs reported on your Form 6765.
- c. With respect to each QRE amount identified in item b., do you have contemporaneous documentation substantiating the claimed amount? If so, for each new or improved business component, provide a list of the documents available that substantiates –
  - i. Qualification of business component, and
  - ii. Determination and qualification of wages by employee, supplies, and contract research expenses.

## Special Rules for Applying Primary Tests

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- Shrink-back rule (Treas. Reg. § 1.41-4(b))
  - Overall business component → most significant subset
  - E.g., Motorcycle → engine → carburetor
  - *Trinity Industries v. United States* (N.D. Tex. 2010)
    - ❖ Taxpayer failed to tie expenses with subset features of ships at issue (e.g., engines, pistons, etc.).
    - ❖ This “all or nothing” approach prevented court from applying shrinking-back rule. 691 F. Supp. 2d at 692.
- Special rule for production processes (I.R.C. § 41(d)(2)(C))
  - A production process shall be treated as separate and distinct from the product to which it relates.



## Excluded Activities – “Nonresearch”

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- Research after commercial production
- Adaptation of existing business component
- Duplication of existing business component
- Surveys, studies, and research relating to management functions
- Internal use software except as allowed by regulations
- Foreign research
- Research in the social sciences
- Funded research



## Preamble to Final 2003 Regulations

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“As stated above, the Treasury Department and the IRS believe that the research after commercial production exclusion (as well as the adaptation and duplication exclusions) do not cover research activities . . . so long as such trials satisfy the requirements of qualified research.”

T.D. 9104, 2004-1 C.B. at 409.

## Qualified Research Expenses (“QREs”)

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### ■ In-house research expenses

- Wages paid to employees for qualified services
  - ❖ Wages = compensation subject to withholding
  - ❖ Qualified services = engaging in, directly supervising, or directly supporting qualified research
- Amounts paid for supplies used in the conduct of qualified research
- Do not include overhead, G&A, indirect costs, or depreciation allowances

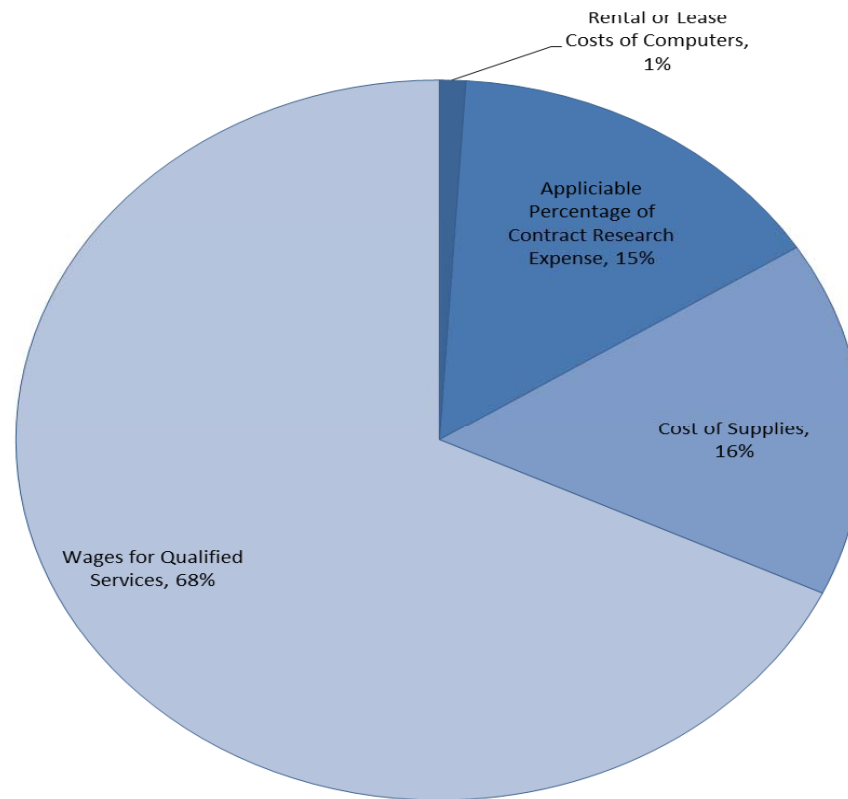
### ■ Contract research expenses

- 65% of amounts



## QREs Claimed by Type - 2009

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*Union Carbide Corp. v. United States,*  
697 F.3d 104 (2d Cir. 2012)

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- UCC claimed as supply QREs the costs of petroleum feedstock and raw materials used in production processes on which qualified research was conducted.
- The Second Circuit agreed with the Tax Court that materials purchased for production of saleable product are not QREs.
  - “Used in the conduct of qualified research” “suggest that the statute only covers costs for supplies purchased for the purpose of conducting qualified research.”
  - Defers to the IRS’s interpretation of “indirect research expenses” to include expenses that “would have been incurred regardless of any research activities.”

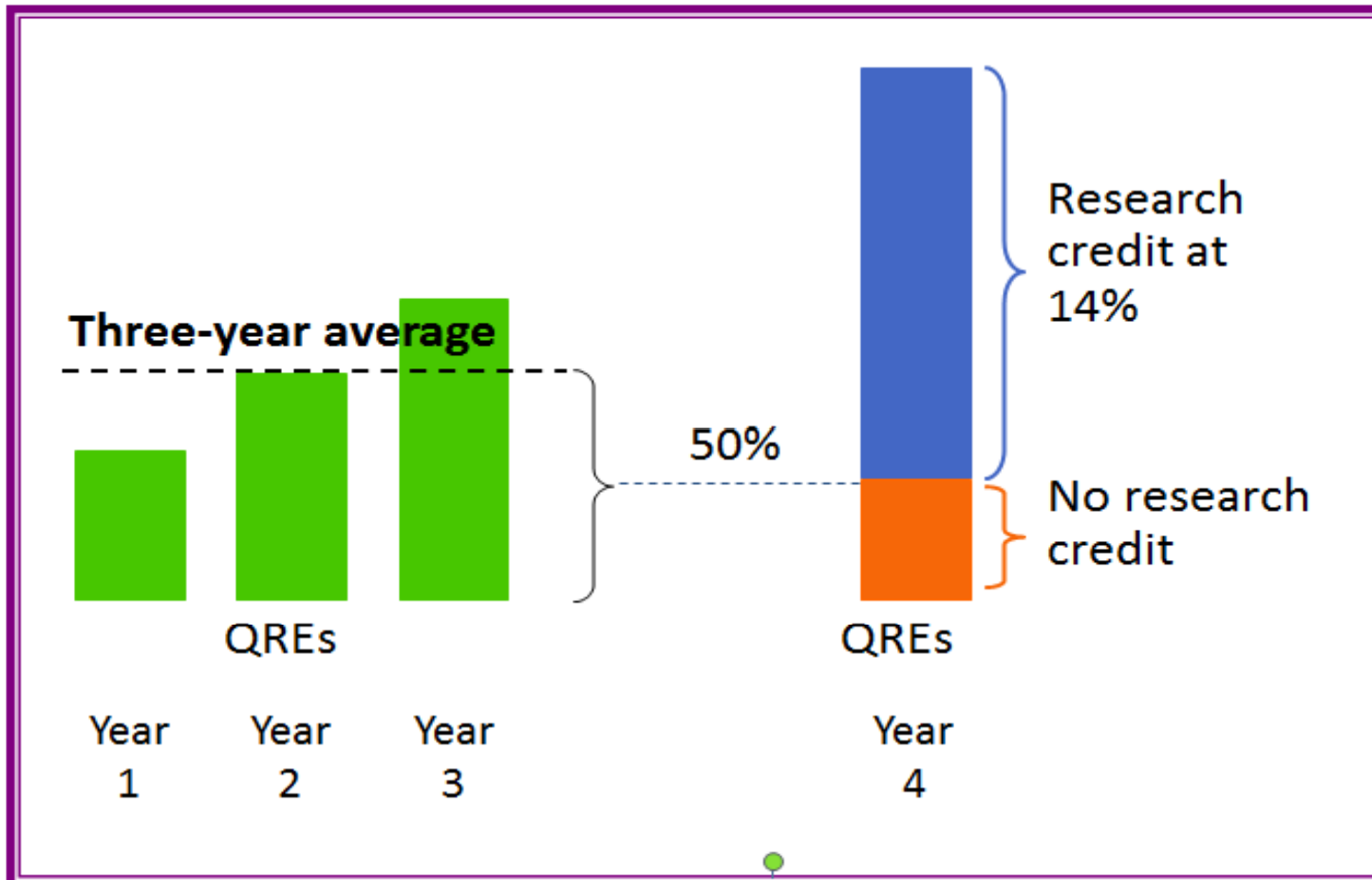


## Research Credit Computation – Regular Credit

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- Equals 20% of excess, if any, of QREs over “base amount.”
- Base amount is the greater of:
  - 1984-88 QREs/1984-88 AAGRs \* AAGRs for 4 prior years, or
  - 50% of credit-year QREs (statutory floor).
- Consistency requirement
- Deductions disallowed for QREs in the amount of the credit unless a timely section 280C(c) election is made, in which case the credit rate is reduced to 13%.

# Research Credit Computation - ASC





## Regular Credit vs. ASC – 2009 Statistics

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- 64% of returns claiming the research credit claimed the regular credit versus 36% claiming the ASC.
- However, the ASC accounted for approximately 60% of the total research credits claimed.

## Case Law Developments

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- *Union Carbide Corp. v. Comm’r*, 97 T.C.M. (CCH) 1207 (2009)
  - “[U]nder the reasoning in *Cohan v. Commissioner*, 39 F.2d 540, 543-44 (2d Cir. 1930), we accept petitioner’s list of identified runs, including concessions, as a close approximation of all of the qualified research activities that occurred during the base period . . . . Our view is supported by the 17 fact witnesses who testified they were not aware of any plant experiments that occurred during the base period that were not included on the list of identified runs except for the experiments that petitioner subsequently conceded.”
  - Not appealed by the IRS.
- *Hewlett-Packard Co. v. Comm’r*, 139 T.C. No. 8 (Sept. 25, 2012)
  - Per Treas. Reg. § 1.41-3, AAGRs include the total amount received from all sources.
  - Taxpayer argued that for pre-regulation years AAGRs were limited to sales receipts and did not include dividends, interest, rent, and other income.
  - The Tax Court rejected the taxpayer’s argument based on finding that “Congress intended a broad, inclusive definition of the term ‘gross receipts’.”



## Substantiation – Basic Principles

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- Taxpayers claiming the research credit must retain records in “sufficiently usable form and detail to substantiate that the expenditures claimed are eligible for the credit.” Treas. Reg. § 1.41-4(d).
- “Treasury and the IRS have re-evaluated whether a research credit-specific documentation requirement is warranted and have concluded that the high degree of variability in the objectives and conduct of research activities in the United States compels a conclusion that taxpayers must be provided reasonable flexibility in the manner in which they substantiate their research credits.” Preamble to 2001 Proposed Regulations, 2001 C.B. at 409.
- “The taxpayer’s reconstruction of claimed QREs is unreliable, incomplete, and wholly insufficient to establish that its claimed research expenditures qualify for the research credit.” Standard NOPA language.

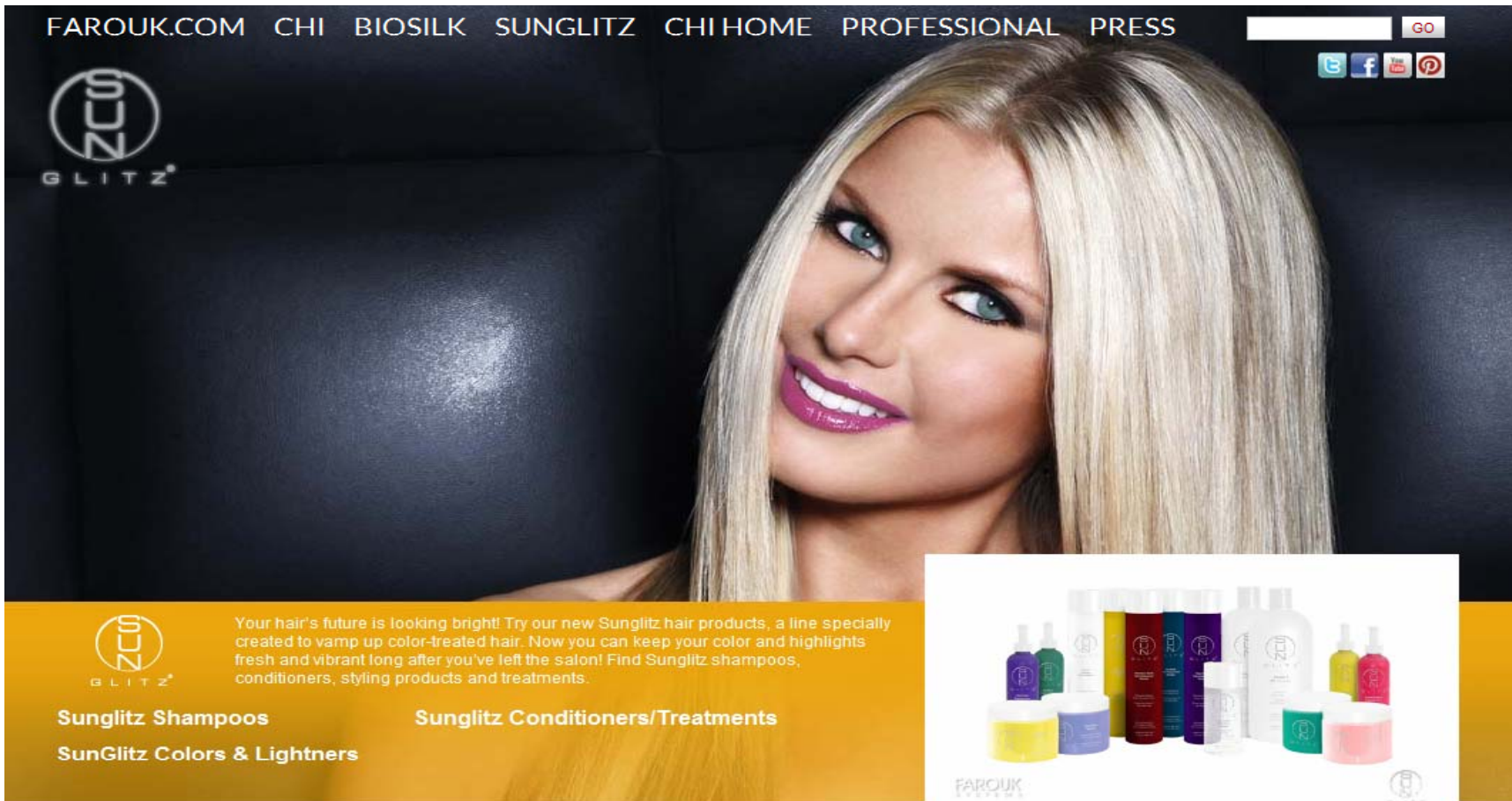
## Substantiation – *Union Carbide* and *McFerrin*

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- *Union Carbide Corp. v. Comm’r*, 97 T.C.M. (CCH) 1207, 1268, 1272 (2009)
  - “Section 1.41-4(d), Income Tax Regs., does not require that a taxpayer substantiate its research credit claim with any particular type of documents.”
  - UCC’s substantiation of its base period (1984-88) qualified research activities and QREs with a combination of expert opinions, contemporaneous documents, fact witness testimony, and estimates was sufficient.
- *United States v. McFerrin*, 570 F.3d 672, 679 (5th Cir. 2009)
  - In the absence of contemporaneous documentation, “the court should look to testimony and other evidence, including the institutional knowledge of employees, in determining a fair estimate” of QREs.



# Substantiation – *Shami v. Comm’r*, T.C. Memo. 2012-78.



The image is a screenshot of the SunGlitz website. At the top, the navigation menu includes 'FAROUK.COM', 'CHI', 'BIOSILK', 'SUNGLITZ', 'CHI HOME', 'PROFESSIONAL', and 'PRESS'. There is a search bar with a 'GO' button and social media icons for Twitter, Facebook, YouTube, and Pinterest. The SunGlitz logo is in the top left corner. The main content area features a large photograph of a woman with long, straight blonde hair and blue eyes, smiling. Below the photo, there is a yellow banner with the SunGlitz logo and the text: 'Your hair's future is looking bright! Try our new SunGlitz hair products, a line specially created to vamp up color-treated hair. Now you can keep your color and highlights fresh and vibrant long after you've left the salon! Find SunGlitz shampoos, conditioners, styling products and treatments.' To the right of this text is a product display of various SunGlitz hair care items, including bottles of shampoo, conditioner, and styling products. The Farouk logo is visible at the bottom right of the product display.

## Substantiation – *Shami v. Comm’r*, T.C. Memo. 2012-78.

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- Taxpayer claimed wage QREs for salaries paid to CEO (\$8-\$9.5MM annual salary) and EVP (\$1.8-\$5.7MM annual salary).
- Taxpayer claimed that CEO and EVP spent 80% of their time on product development in two taxable years.
- Tax Court rules that taxpayer failed to adequately substantiate wage allocations:
  - Neither had training or experience in science or engineering.
  - No time records, R&D reports, or other contemporaneous documents.
  - Testimony offered to substantiate time was contradictory and inadequate.
  - Taxpayer failed to provide a reasonable basis upon which court could estimate wages allocable to qualified research.
- Consider a RCRA or PFA to define documents to be kept.
- Consider statistical sampling per Rev. Proc. 2011-42.

## Substantiation - Synthesis

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- There are no shortcuts.
- Contemporaneous documentation is critical.
  - No particular type of document required.
  - The type of documentation will depend on the nature of the business and research.
  - Examples:
    - ❖ Test plans and reports
    - ❖ Management summaries
    - ❖ Regulatory submissions
    - ❖ Time logs
    - ❖ Employee listings
    - ❖ Job descriptions



## Substantiation - Synthesis

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- Leverage your researchers.
  - Identify, substantiate, and explain research.
  - Advocate to IRS where appropriate.
- Real-time is better than after-the-fact.
- Consider use of time-keeping systems.
- Remember your base period documentation.
- Consider a RCRA or PFA to define the types of documents to be kept.
- Consider statistical sampling (Rev. Proc. 2011-42).



## Section 230 Disclaimer

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- This document was not intended or written to be used, and cannot be used, for the purpose of avoiding U.S. federal, state or local tax penalties.



Questions?

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