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“A Preliminary Theory of Organization Implosions: Lessons from the Stanford Yacht Case”

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Introduction

Organizations fail and sometimes they organizations fail colossally. In many instances, the reasons for organizational disasters are easily identified. If the treasurer absconds with the funds, we are presented with no mystery. If cyber-terrorists wipe the servers clean, we know the source if not necessarily the culprits. If an earthquake levels headquarters, there may be questions of building standards, but the origin of problems is not obscure. But there is another broad category of organizational disaster that is more complex, more interesting, and more relevant to management and leadership. How do organization disasters occur in those cases where resources are plentiful, technologies are powerful, nature is benign, and people are smart, hard-working and honest?

I use the term “implosive disasters” to identify those cases in which the organizational members (usually its leaders) are largely responsible for wreaking havoc. This paper is a first attempt to develop a theory focusing on why implosive disasters occur and, just as important, to classify and predict the types of effects occasioned. However, since organizational disasters have an especially complex and multi-layered causality, typically including a significant number of idiosyncratic and context-specific events, the paper gives less attention to the *causes* of implosive disasters than to developing propositions about organization’s *vulnerability* to them.

To put it another way, nearly any organization can implode if it is so unfortunate as to fall victim to a series of improbable events, each lined up in the worst possible sequence. But to say that most organizations are vulnerable to implosive disaster is not the same as saying that disasters are random. Some institutional settings, organizational designs and management structures render organizations at higher risk for implosion. In some cases organizational disasters occur because of organizational leaders' sustained and egregious incompetence. However, in many cases the particular actors associated with an implosive disaster tells us little about the disaster and its causes. In some instances, organizations and institutions are "time bombs" and if there is a random factor it is who happens to be in the seat when the time bomb goes off.

A core assumption of this paper is that organizational implosion can be accounted for by particular aspects of institutional and organizational design and by structural aspects of the organization's management. While these factors generally interact with the particular attributes of organizational leaders, the institutional factors often are more important than the individual attributes in explaining organizational implosion. Thus, the current paper is not a study of leadership or leaders per se, nor is it a study of decision-making; rather it is a study of organizations, their policies and designs and the outcomes they produce.

The paper presents a case study and uses it as a touchstone for understanding implosive disasters. This case, sometimes referred to as the "Stanford Yacht Case," shows the causes and consequences of Stanford University officials' incredibly bad decision to charge \$1.2 million appreciation for the university's yacht, *Victoria*, a donated yacht used by members of the Stanford

Sailing Association, to federal research overhead accounts (Barinaga, 1990). The case is a rich one because it illustrates one of the common elements of implosive organizational disasters, the tendency to result in massive collateral damage.

Approach

Developing a theory of organization disaster requires many analytical steps, only some of which are taken in this paper. First, we must identify the concepts and set boundaries. The next section of the paper develops the concept “organization disaster” and distinguishes “implosive organization disaster” from other types. After establishing the working concepts for the paper, an elementary taxonomy is developed showing relationships among types of organizational disaster (see Hage, 1965).

Following the taxonomy, I suggest that organizational disasters can be said to have a life cycle and present a life cycle framework applicable to the study of organizational disasters. (The framework is later applied to the Stanford Yacht case). After presenting the life cycle framework, I provide a limited of the issues involved in sorting out the causality of disasters and explain the rationale for the organizational perspective employed here. With this considerable analytical preface, I then turn to the Stanford Yacht case, which is presented in some detail. This case is used to generate propositions about organizational vulnerability to disaster.

Concepts of “Organization Disaster”

Bad things happen in organizations. Indeed, except in the newest organizations, we can assume that many bad things have happened over many years. Whether these “bad things” are on-the-job-accidents, personnel cutbacks,

unethical treatment of workers, or just decline in profits, bad things happen. But when does a “bad thing” qualify as an organization disaster? Disasters are not ordinary “bad things.”

Defining Organization Disaster

If a C.E.O is disgraced, perhaps due to an ethical lapse, but the company remains solid in every other respect, is this a disaster? If there is an economic downturn that requires the company to lay off one-third of its workforce, but as a result, the company’s stock soars, is this a disaster? Or is it good management? If a government agency’s clients suffer extremely adverse consequences but the agency expands and its budget increases, is this a disaster? Let us posit that, for any given organization, a disaster occurs if *extraordinary and highly disruptive events bring extremely negative consequences to the organization’s stakeholders, including the members of the organization and the clients or customers upon whom it depends for its livelihood*. These impacts need not be direct. For example, if a company that makes dog food manages, in the process of production, to have enormously negative impacts on the natural environment and, in turn, organized environmental groups generate such bad publicity for the organization that those who purchase dog food, but who have not been directly affected, decide to purchase another brand of dog food, then the fact that the *immediate* impacts of the “extremely negative consequences” do not directly affect stakeholders makes not difference. The result is a disaster. By the same token, if an organization precipitates events that have terrible consequences for persons who are not organizational stakeholders and there are never direct or indirect adverse consequences for the organization then let us say that a disaster

has occurred but it is not an organizational disaster. It is also likely the case that instances of disasters perpetrated by organizations but not affecting organizations are uncommon. If Nestle poisons baby food used overseas, or if the CIA by covert actions causes regime change from a bad to an even worse tyrannical government, both the disaster and the causal agent generally come to light. There are exceptions. If a metals refiner in Cleveland generates air emissions that result in acid rain affecting the Adirondack lakes, it is possible that the disaster will be evident to everyone but the organizational culprit will not. Indeed, it is possible that the culprit will not even be aware of its culpability; thus, a disaster but not an organizational disaster.

Is there a minimum duration of a disaster? Certainly, the precipitating event itself need not have a minimum duration. If a building collapses, it may happen very quickly. But let us posit that *while the precipitating event (or proximate cause) of the disaster need have no minimum duration, an organizational disaster, by definition, has on-going negative effects.*

Defining Implosive Organizational Disaster

The above definition of organization disaster and the addendum posited above deal with outcome not cause. The implosive organization disaster is a particular type distinguished by its cause: organizational members (typically organizational leaders), acting in their official capacities, contribute materially to the disaster. An implosive disaster does not require that the actions of organization members are the only cause or necessarily the most important one, but they must be a major ingredient. The many bad things that happen to organizations that are in any reasonable calculus beyond organizational

members' control are not, by the present concept, implosive disasters. Thus, when the 9/11 terrorist attack occurred it was a disaster that affected literally tens of thousands of organizations- but it is not useful to think of these tragedies as implosive disasters.

In many cases it is not at all clear cut as to whether the organization has a role in its own immolation. For example, when President Reagan brought in Ann Burford, a life-long enemy of environmental regulation, to essentially dismantle the U.S. Environmental Protection Agency, one could argue (I would not) that the resulting disaster was implosive. One interpretation of events is that they occurred in part because the previous EPA leadership had failed to buffer itself sufficiently for clearly-signaled, sweeping political change. This interpretation seems to me a bit unrealistic and far-fetched but others might disagree and, moreover, the alternative interpretations show that this cases, as most cases, presents a variety of causal hypotheses. Moreover, one role of organizational research is to clarify organizational disasters, identify causes, and distinguish implosions from other types.

Realizing that it is a concept better used for research hypothesis than as a clearly identifiable state of affairs, we can build on the definition of "organizational disaster" to define "implosive organizational disaster" as *extraordinary and highly disruptive events caused in large measure by the organization's members and having on-going extremely negative consequences for the organization and its stakeholders.*

In later sections we return to the particular focus, implosive organizational disaster. But since this is a sub-set, let us first attend to matters more general to

understanding organizational disaster: disaster life cycles and a general taxonomy of organization disaster.

Taxonomy of Organizational Disasters

Taxonomies are often used as pre-theory analytical devices (Pinder and Moore, 1979); they are useful for determining attributes of the phenomenon to be explained and, particularly, identifying those attributes that are especially worthy of scrutiny. This is often a pre-requisite step to explanation of phenomena (McKinney, 1966).

Two bases of distinction for organizational disaster are their origin and their impact. Figure 1 provides a simple depiction of the most obvious possibilities. The figure distinguishes between the origin (internal or external) and the impacts (internal, external- stakeholders, and external- collateral publics) of organizational disasters. While it is useful to think of the origins and impacts in this way, one must bear in mind that almost all organizational disasters have multiple origins and many have multiple impacts. Figure 1 is a simple starting point, but it does help locate organizational implosion disasters. Those that have exclusively or predominantly internal causes *may* be implosion disasters; those that have exclusively or predominantly external causes cannot be. The figure distinguishes between the types of internal causes, based on two factors- whether the actions that are the predominant causes of disaster are legal or illegal and whether they authorized or not. My “authorized” I mean sanctioned by the organization with organizational members acting in their official roles. This is an important distinction for present purposes because implosive disasters occur when based on authorized actions (whether or not

illegal). If the actions are not authorized (e.g. individual graft and corruption) then, by my conceptualization, there is no *organizational* implosion. In such cases the only obvious organizational culpability is the hiring of amoral individuals (though there are possible organizational culpabilities is there are aspects of the organizational culture or rules that either select such individuals or permit them to thrive).

Table One improves somewhat on the schematic in Figure One in that it provides more detail about origin-impact categories and provides examples. The table identifies taxonomic categories but focuses on the one of interest here, organizational implosion. The table provides two examples of implosive disasters. The Army Corps of Engineers decision to rechannel the flow of water in the Everglades is an example of an authorized, legal decision with vast negative consequences. The Nixon administration's Watergate cover-up provides an excellent example of an illegal organizational implosion. The actions taken by various parties (e.g. Robert Haldeman, John Dean, John Mitchell) were in part based on official orders, albeit illegal ones. In both cases, examples are provided for the locus of impact, respectively, the organizational members, stakeholders and collateral parties.

Figure One: Organizational Disaster Schematic

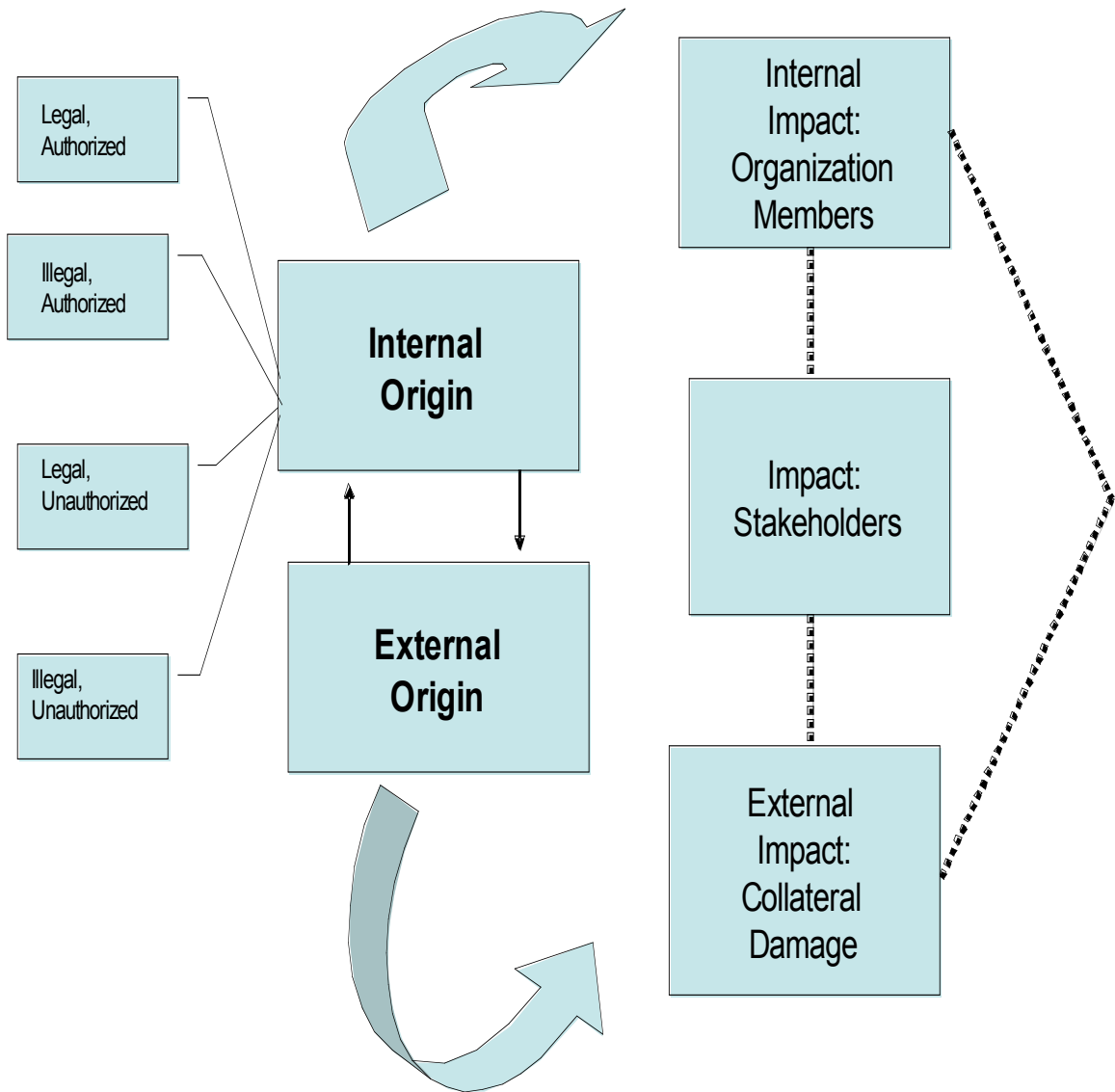


Table One. Positioning Implosive Disaster

<i>Internal Disaster Category</i>	<i>Hypothetical Disaster</i>	<i>Impact Locus</i>
Authorized-Legal (Implosive)	The Army Corps of Engineers decides to rechannel the flow of water in the Everglades in an attempt to reduce flooding the result is a change in the Everglades ecology threatening its very existence and leading to the endangerment of plant and wildlife species.	<p>Organizational Members: bad publicity, loss of credibility.</p> <p>Organizational Stakeholders: government partners in Florida suffer multiple adversities of environment, expense and public relations.</p> <p>Collateral Parties: The general public suffers impacts on natural systems, business dependent on tourism or fishing suffer, and species suffer.</p>
Authorized Illegal (Implosive)	Using blanket of executive privilege, officials in the Nixon White House conspire to provide illegal cover-up of Watergate burglary.	<p>Organizational Members: White house staff and high government officials are convicted and sentenced to prison.</p> <p>Organizational Stakeholders: The Republican Party suffers unusually large number of defeats in mid-term Congressional elections.</p> <p>Collateral Parties: Public cynicism reaches new highs; entry into government seems less attractive.</p>
Unauthorized-Legal (Venal)	President Clinton has consensual sexual relationship with White House intern.	
Unauthorized-Illegal (Venal)	President of New York Knicks basketball team sexually harasses female subordinate resulting in court's financial award after subordinate sues.	

Organizational Disaster Life Cycles

Just as an organization can be said to have a life cycle (Kimberly and Miles, 1980), so can we identify the life cycle of an organization disaster. Taking the definitions presented above, we can say that the life cycle of an organization disaster can be analytically divided into the following stages (recognizing that the imputation of these stages is for convenience and that they are not mutually exclusive):

1. **The generation stage.** This is the period in which the factors that ultimately cause the disaster are gathering together.
2. **The proximate cause stage.** At this time, the factors causing the disaster coalesce and the event(s) that constitutes the disaster occurs.
3. **The secondary cause stage.** During this period, various disaster events may occur and spread negative outcomes to parties not previously affected and perhaps generate a snowball effect of one disaster leading to the next.
4. **The recognition stage.** This may occur early or late in the life cycle of the disaster; it is the period during which the organization and its members recognize the disaster, begin to have an appreciation for its full effect. In some cases the organization's role in the disaster may be recognized at this time.
5. **The vetting stage.** During this period the organization and its members attempt to identify causal factors in the disaster including, perhaps, the organization's actions that contributed to the disaster. There is no implication that the vetting will be correct or that the organization's role will be gauged accurately (or identified at all).

6. **The response stage.** There is inevitably an effect but there is not inevitably a response, at least if we mean by a response a self-conscious strategy for mitigating the effects of the disaster (Pettigrew, 1987).
7. **The inculcation stage.** Organizational disasters do not last forever. Once the disaster has passed, the inculcation stage occurs (Meyer and Zucker, 1989). This refers to the organizations' and its members' interpretation of the meaning of the disaster for the organization. This may involve mythologizing about the disaster, it may involve long-term changes in the organization that have been brought about by the disaster, and it may even involve a shared denial of the disaster, its effects, or the organization's culpability.

Each of the stages of the disaster life cycle is relevant to management. During the *generation stage*, the appropriate managerial role is anticipation. In many instances, in the generation stage, the gathering storm does not depend on explicit actions of the organization. The organization does have a role (according to the posited definition of "organizational disaster") in the *proximate cause stage*. If we think of management as something other than a monolith, the effective managerial role at this stage is for some managers to recognize and understand the implications of what others (those who have contributed to the disaster) have done. The *secondary cause stage* involves "seeing the big picture" and understanding, as fully as possible, the events that have been unleashed. The *recognition stage*, which may occur early, late, or not at all, should involve, in the best of circumstances, an in-depth understanding of the impact of the

disaster on the organization and the *vetting stage* is successfully executed if managers have a valid explanation of the causes of the disaster and the organization's role in the causal chain. The stage that is obviously of crucial importance, and to some extent dependent on the foregoing stages, is the *response stage*. If management has an excellent understanding of the impacts of the disaster and the organization's role, then it is more likely, but certainly not patent, that effective responses will be developed. The management response in the *inculcation stage* is one of sense-making. Does the organization learn the right lessons from the disaster?

Complex Causal Trajectories of Organizational Implosion

While the focus of the paper is on risk and vulnerability to disaster rather than to proximate causes of organizational disasters, it is nonetheless useful to identify some categories of causal variables. Two vitally important categories of causal variable are considered briefly below: "the flawed individual" and "flawed group dynamics." Each of these is well represented in research literatures on decision-making or accidents and need not be developed in detail here. Moreover, these very important influences on disaster are given limited attention because my paper focuses on organizational and institutional level variables rather than individual-and group-level variables.

The Flawed Individual Perspective

Disasters often occur because of the particular flaws of particular individuals. These do not always add up to "incompetence;" rather, it is sometimes the case that particular attributes of individuals are poorly adapted to needs of the situation or a particular crisis. Sometimes the same attribute that

has served the individual can in changed circumstance lead to disaster. Given the objectives of this paper, this important category of causation is of little interest (except that it is important to recognize it). Thus, let us consider just one of many relevant historical examples.

Most historical renderings of the Battle of Gettysburg suggest the “obvious” folly of Pickett’s Charge. One who studies the leadership of Robert E. Lee has a hard time reconciling that disastrous decision, which by all accounts he participated in and endorsed, with his generally excellent strategy and tactics. However, when one considers the string of strategic successes that preceded the Battle and, most important, the fact that Lee, as so many leaders in both the Union and Confederate army, believed that God actively and regularly intervened in events, it is possible to view Pickett’s Charge as Lee’s interpretation of yet another manifestation of God’s Will. To put it another way, had Lee been a closet atheist, a Deist, or a Christian who believed in a less engaged God, then the result of the battle might have been entirely different. (I am not suggesting that Lee’s apparent religious beliefs were in general a hindrance, only that they seemed to be in this particular case.)

The Flawed Group Dynamics Perspective

Certainly the best known approach to dissecting organizational disasters is the set of studies focusing on “group-think.” Irving Janis’ (1954; 1961; 1966) early work in understanding the group psychology by which elites can reinforce bad decisions is highly relevant to understanding organizational disasters, including implosive disasters. Despite its dominance as an explanation, group-think is only one of a variety of explanations related to the social psychology of

group dynamics (e.g. Karn, 2003). Disasters occur not only due to “illusions of invulnerability” and “suppression of dissent” but also as a result of such factors as decision rules and norms, recruitment to groups, aspects of participation, bandwagon effects, and blind obedience to authority (for a wide-ranging discussion of negative effects of group dynamics see Connelly, 2000). Perhaps the best documented case study of negative effects of group dynamics is the case of the Cuban Missile Crisis, which was Janis’ base case as well as the case employed in Allison’s (Allison, 1968) influential multiple-perspective analysis, among many others.

Multiple Causes and the Role of Idiosyncrasy

I suggested in the introduction that organizational disasters, especially implosive disasters, have an especially complex causal trajectory, in part because of the significant role of idiosyncrasy in disasters. Let us consider an analogy. If one examines the records of airline disasters, one finds in almost every case that one or more of the most important precipitating events was highly specific to the case. Let us consider an example, one perhaps not too far removed from real events.

After a commercial airline crash, investigators are piecing together evidence and have obtained the flight data recorder. They find that an experienced pilot who had checked an hydraulic gauge tens of thousands of times previously in this one instance failed to check the gauge. The co-pilot, who is quite inexperienced fails (perhaps due to timidity) to remind the pilot to perform the check. In most cases the failure to check the hydraulic gauge would have no adverse consequent, but in this case, one in thousands, the system was actually

malfunctioning. And this failure might have been irrelevant had not the weather conditions a particular point in time have produced an exceptional wind shear that required the pilot to make a rapid adjustment in the tail flap, but the failed hydraulics meant that such an adjustment required 15 seconds rather than the usual 3 seconds. In recapitulating events, the episode may be judged “pilot error.” But the teleology of the events is sufficiently complex that “pilot error” does not necessarily add up to “incompetence.” Neither does the outcome add up to “random.” As reconstructions of such disasters as the Challenger (Vaughan, 1996) and Three Mile Island (Kemeny, 1980) have shown us, human error tendencies are highly sensitive to the organizational context in which they are embedded.

In considering the above case it is possible to analyze the incident from multiple perspectives. First, an individual, in this case, the pilot, made what turned out to be a disastrous mistake. Second, a group dynamic operated such that the inexperienced co-pilot did not feel comfortable insisting that the pilot correct the mistake. However, we can also consider the disaster at the level of the organization. For example, it is likely an organizational problem if insufficient redundancy is built in to decisions systems such that a single human failure can lead to disaster (Landau, 1979; LaPorte, 1990, Roberts, 1991). Similarly, if airports do not have adequate instrument landing requirements during bad weather, then the air safety institutions can be judged to have failed.

While it is useful, ultimately, to develop holistic approaches to analyzing particular disasters, there is also an argument for taking a specific analytical lens. The issue is one of concentration. An holistic approach provides the best means

of concentrating on the case and the context. But if one is seeking to develop general theories rather than history, then it is often useful to take a focus that is not holistic but a partial perspective, and attempt to develop a deeper understanding of that perspective. The focus here is on organizational- and institutional-level contributions to disasters.

The Stanford Yacht Case

While not generally known as the most exciting of organizational activities, accounting is often the first place to look for impending disaster. The Stanford Yacht case, an unfortunate landmark in U.S. policies for universities, has many typical ingredients of implosive disasters- hubris, excess, misfortune, and failed leaders falling on their metaphorical swords- but it is at its core an accounting story that requires for its understanding some minimal accounting history.

Background: Indirect Costs

For many years, it has been the practice of U.S. universities with federal research and development (R&D) contracts to split R&D budgets, accounts and expenditures into two categories- direct costs and indirect costs. During most periods of university R&D policy, such factors as researchers' time and research expenses such as travel costs and new research equipment have been judged direct costs of the research and are stated as such in financial instruments. But since the 1960's federal funding agents have recognized another cost of doing research- the cost of university infrastructure that does not pertain to any specific project but is nonetheless required for research facilities. Some of these so-called indirect costs include such factors as the cost of maintaining buildings in which research facilities are contained and the general costs of supporting grants

and contracts administration. Whether referred to as indirect costs, overhead or facilities and administration (F&A), these costs have always been somewhat controversial because, since they are indirect, it is not easy to establish their exact amounts or their exact proportionate costs for particular projects. Not only do indirect costs, their rates and their recovery and distribution formulas occupy the time of university administrators and government officials, they are also of vital interest to faculty researchers. In most cases, faculty researchers and university administrators have very different incentives: the faculty wish to keep the rates low so as to use a larger percentage of overall funding for their grants and university administrators wish to keep the high (at least so long as they are within competitive range) so as to “pay the bills” and develop discretionary funds controlled by university officials such as provosts and vice-presidents for research.

Before 1966, the federal government had a single indirect cost rate applicable to all federally-funded R&D providers. The first established indirect cost rate was 8% of direct costs, but universities lobbied to increase this rate, arguing that it was unrealistically low and result in an unfair shift of university resources to federal purpose and activities. Thus, the rate was increased to 15% in 1963 and 20% in 1966 (McPherson, et al., 1996).¹

In late 1966, the federal Bureau of the Budget (now the Office of Management and Budget), permitted universities to negotiate unique indirect costs rates and used the Department of Health, Education and Welfare (now Department of Health and Human Services) and Department of Defense auditors to work with university officials to develop these negotiated rates. Currently,

guidelines for determining indirect costs are provided by OMB Circular-A21, “Cost Principles for Educational Institutions,” the one administrative order known to all university research administrators and higher officials. Circular-A21 requires use of generally-accepted accounting principles and seeks to determine reasonable reimbursement of indirect costs. It provides specific accounting definitions of direct and indirect costs and seeks to bring more precision to calculation of indirect costs rates. Most important for present purposes, OMB A-21 establishes three cost allocation criteria: (1) they must be allowable (i.e. fit permitted categories); (2) they must be reasonable (i.e. fair market for services and goods, functional not luxurious); (3) costs must be amenable to allocation to particular federal R&D sponsors (i.e. relating project and program costs to particular funded accounts). Related, the circular establishes seven accounting categories for indirect costs, including (1) Depreciation and Use Allowance; (2) Operation and Maintenance Expenses; (3) General Administration and General Expenses; (4) Departmental Administration; (5) Sponsored Projects Administration; (6) Library; and (7) Student Administration and Services. Each of these categories is identified in considerable detail, presumably reducing the likelihood that costs and expenditures will be misallocated.

While OMB Circular A-21 has brought a great deal more precision to university R&D accounting than existed previously, controversies remain and negotiations over indirect costs are often intense or even acrimonious (Johnson, 1991; Marburger, 1992). For all parties, the stakes are enormous. Today, nearly 30% of university R&D funding goes to indirect costs and in some universities the

indirect costs rates are as high as 70%. With total federal funding of university research exceeding \$30 billion (U.S. National Science Foundation, 2007), a change here and there in the indirect cost rate sometimes has the effect of redistribution tens of millions of dollars.

With that background we can begin to understand the enormous import of a series of bad research accounting decisions made at Stanford University during the late 1980's and 1990. The details of the Stanford Yacht case are presented in terms of the disaster life cycle framework presented above.

Precipitating Events

The Stanford Yacht case is typical in the sense that many of the factors causing the disaster occurred well before the disaster was triggered; it is atypical in that these factors were unusually broad-based, applicable to nearly all universities, and had been in force for many years without serious incident.

All U.S. research universities operate under a Memorandum of Understanding negotiated between the university and its officially assigned federal auditors. These MoU's not only set the allowable indirect cost rate for the particular university but provide detailed agreements on allocation of costs to the cost pools referred to above. During the generation stage, Stanford University's research accounting resembled the approach of many other universities—interpreting the law broadly and taking the maximum allowable expenses for indirect costs. The Stanford approach, similar to others universities, was to take expenditure categories that were multi-purpose (e.g. office space, computing) and allocate a rotating fixed percentage to various allowable account types, including indirect costs. Thus, the if the monthly cost of heating a building used

for research, teaching and administration was \$10,000, the distribution for accounting purposes might be 30% from tuition revenue, 40% from general funds and 30% from indirect costs. However, as we see below, this common approach to accounting set the stage for implosive disaster.

Fraud and Abuse Warriors: Rep. John Dingell and Paul Biddle

Two individuals were at the center of the disaster, defining it and setting it in motion- Office of Naval Research auditor Paul Biddle and Rep. John Dingell, Congressman from Michigan's 15th District (which includes Detroit), at the time chair of the of the House Energy and Commerce Subcommittee on Oversight and Investigations.

In March, 1990, Biddle wrote a memo to his ONR superiors suggesting that a "cozy relationship" had developed between Stanford University and ONR, the agency responsible for auditing federal research spending at Stanford, and that Stanford had been able to recoup more indirect costs from the federal government than was allowable. Apparently, the ONR did not act on the Biddle memorandum and subsequently Biddle made the memorandum public and he (or others, this part is not public record) contacted Rep. Dingell's staff about the allegations. Shortly thereafter, at the behest of Rep. Dingell, investigations were begun by his sub-committee, by the General Accounting Office (now Government Accountability Office), and the Defense Department's DCCA.

Among the items brought to the attention of ONR and, ultimately, the Dingell sub-committee and the news media, was the allocation of depreciation on Stanford's \$1.2 million, 72-ft. yacht, *Victoria*, a 1987 gift to the university, used chiefly by the university's sailing club. Stanford University assistant controller

Janet Sweet admitted the mistake. The accounting mistake resulted in \$184, 280 in unallowable charges. University spokesman Larry Horton, pointed out that this amount was only 0.04% of the \$443 million in research indirect costs charged to the government.

In investigating the mistaken and illegal charge on the *Victoria's* depreciation, congressional investigators also found that some of the following items had been charged, in part (20%), to indirect costs accounts: \$2,500 for the repair of a grand piano, \$3,000 for a cedar lined closed, and \$2000 per month for flower arrangements, all in the home of Stanford president Donald Kennedy, and \$186,0000 to operate and maintain a university-owned shopping center. Significantly, all these items, except for the yacht depreciation, were legal and allowable under the law and under the negotiated MoU.

By September, 1990, the news media had begun to report the Biddle allegations and, most important, the ABC news program "20/20" interviewed Biddle for a telecast watched by tens of millions. By this point, the shockwaves from the allegation and the subsequent investigations had reached virtually all university research administrators, most research faculty and responsible federal officials, and much of the general public. The Navy presented Biddle with its Meritorious Civilian Service Award for his role in the Stanford investigation.

The Stanford Response

Apparently, Biddle made verbal reports to ONR as early as October, 1988 and the written reports were provided in March, 1989. It is not clear whether Stanford University officials had knowledge of the verbal reports or the early written reports. However, in early-1990, when Biddle testified before the Dingell

Committee, recognition had certainly set in. A few months later, the ONR, the U.S. GAO and the Defense Contract Audit Agency had all begun requesting records and initiated investigations. The early Stanford response was to acknowledge the one clearly agreed upon accounting error (the yacht depreciation) and to point out that all the other items, including expenses on riding stables and university officials' mountain lodge, were all legal and allowable. Soon thereafter the university became more proactive, hiring a public relations firm to represent them, hiring the accounting firm Arthur Andersen to assist with a Stanford audit investigation and voluntarily returning more than \$800,000 in presumably allowable, but controversial, indirect cost charges. In addition, Kennedy appointed an advisor committee to review Stanford research accounting practices and recommend changes (Pollack, 1991). The investigations and audits continued for months and Kennedy complained that the Stanford controller's office was in a state of gridlock resulting from 3752 requests from 32 auditors in the first few months of 1991.

By February, 1991, a report had been issued by the ONR Inspector General and the report failed to substantiate Biddle's estimate that Stanford had over-billed as much as \$200 million. However, the DCCA analysis was more critical and when DCAA deputy director Fred Newton testified before the Dingell subcommittee he estimated that Stanford's negotiated "special exceptions" had since 1983 cost between \$15-18 million and that \$1-2 million was likely unallowable inasmuch as it was allocated to the university's expenses for its shopping center. Newton testified that Stanford "had not been cooperative" (Hamilton, 1991, p. 1420). Newton indicated that the DCCA had recommended that the Stanford

negotiated indirect cost rate be dropped from 70% to 52%. This recommendation (actually changed to 55.5%) was unilaterally implemented (i.e. not negotiated) later in 1992, resulting in an estimated \$24 million dollars of foregone cost recovery for Stanford.

Some viewed the ONR as in part culpable. GAO's Milton Socolar told the Dingell sub-committee that ONR had not subjected Stanford's exemptions or special exceptions to either audit or legal review, as required by the law. According to Newton, who endorsed this view, the Stanford exceptions were "not in the governments best interest...It seems the criteria used was [sic] whatever would enhance Stanford's revenues" (Hamilton, 1991, p. 1420). Paul Ehrlich, one of the best known Stanford faculty members, noted that the "abuses" were not due to Stanford's attempt to hide its activity and that the Stanford yacht error was found only after "an audit that had been long requested by Stanford and was so long delayed by the government that the unaudited period covered more than 20 million transactions" (Ehrlich, 1992, p. 703).

While Kennedy protested that the rate was far below actual costs he at the same time announced that an internal audit had revealed \$925,000 in potentially questionable charges during the period 1981-198 and that this money was being returned to the government (Palca, 1991). On March 23, 1991, Kennedy spoke to a meeting of the Stanford Alumni Association in Los Angeles and apologized for "highly embarrassing" accusations and observed "If you are embarrassed or angry about what has been said about us, you are in good company. I own you an expression of deep regret and apology that we have not met our historical standards n the affair (New York Times, 1991b, p. 1). On July 28, 1991, the

embattled Kennedy resigned submitted his letter of resignation (effective one year from that date).

As the federal government moved to change the Stanford indirect cost rate and its MoU, Stanford officials and some other critics began to cry “foul.” Since both the 70% indirect cost rate and the “special exceptions” had been legal and negotiated with ONR, and since most of the disputed indirect cost charges were legal, some critics (e.g. Erlich, 1992) viewed the move as punitive. In a statement issued on January 2, 1992, by Kennedy and James Gaither, chairman of the Stanford Board of Trustees, the two noted that “government auditors may be disregarding the memoranda of understanding. The government cannot now retroactively ignore those agreements to which is was a party and choose to apply different standards” (*New York Times*, 1992).

The Biddle Suit

As the ramifications of the Stanford Yacht case played out, an interesting Paul Biddle side-show unfolded, beginning in 1991, but ensuing for several years. In September, 1991, Biddle filed a *qui tam* suit in Federal Ninth District Court (U.S. ex rel. Biddle v. Board of Trustees of Leland Stanford, Jr. University) seeking, under the 1986 False Claims Act (see 31 USC Secs. 3729 and 3730) to be awarded a percentage (up to 30%) of the money the federal government reclaimed from Stanford University.² Biddle hoped that the calculation would be based on alleged savings of about \$80 million. On December 16, 1991, shortly after Biddle filed suit, two members of Congress, Representative Don Edwards (D.-California) and Senator Jeff Bingaman (D.-New Mexico) sent letters to the Bush Administration arguing that Biddle was violating conflict-of-interest laws

by continuing to monitor Stanford University while simultaneously pursuing a potentially lucrative law suit at the university (*New York Times*, 1991).³ Within one month, Biddle had resigned from ONR.

The Biddle court case was not adjudicated until 1998 (U.S. ex rel. Biddle v. Board of Trustees of Leland Stanford, Jr. University). The court dismissed Biddle's case on jurisdictional grounds, saying that he did not have standing because his case was based on public disclosures and because he did not qualify as the original source of the information provided to the government. The fact that he released his claims to the media before fully pursuing official channels disqualified him for claims. Most important, Biddle's position was to report improprieties and, thus, he was performing the duties of his position (thereby not eligible under a *qui tam* suit).

Shock Waves at other Universities

Particularly important in the Stanford Yacht case, during the secondary effect stage disaster events may spread negative outcomes to parties not previously affected and perhaps generate waves of impact that last many years. Arguably, the impacts from this case are even now being felt.

The initial secondary effect entailed a scrambling by research universities to re-examine their indirect cost practices and in many cases voluntarily return money to the federal government. As early as May, 1991, MIT had withdrawn charges of \$731,000 for decorations for the presidents house, receptions and foreign travel; Harvard Medical School returned \$500,000 for cost related to the president's house, and Cal Tech returned \$500,000 for office expenses for the president and three other officials (Palca, 1991). Later, the University of Michigan

sent a check reimbursing charges for \$380,512 for items including costs for trips to the Rose Bowl and advertising for the football team (Pear, 1992).

The sentiments of college presidents was perhaps best summed up by Edward T. Foote, then president of University of Miami, “There but for the grace of God could have gone a great many of us. all of us have gone back and asked a lot of hard questions to make sure that we’re not going to embarrass ourselves and our institution” (DePalma, 1991, p. 3).

At the same time as university officials were seeking to reposition themselves and head off audits and bad publicity, the OMB was acting to limit reimbursements, identifying thirteen categories that would no longer be allowed, including costs for entertainment and alcohol, expense related to university officials’ living quarters, lobbying costs, and expenses for memberships in social and country clubs. This was only the beginning of a wave of reforms to OMB-A21 and other rules for research accounting. Indeed, it is fair to say that after 1992, research administration in U.S. universities was qualitatively different from before, complete with more accountability, more control, more scrutiny and more red tape. Research administration offices were vastly increased all over the U.S. and the research management burden of funded researchers was vastly different, and much more time-consuming than before.

One secondary impact of the Stanford Yacht case was to add more fuel to the flames of conflict between university researchers and university administrators. Researchers had long complained of being “taxed” and felt that the amount of overhead charged on their projects greatly reduced the amount of money available for research. A typical complaint was voiced in a letter to the

editor of *Science* (Stryker, 1991, p. 359) who noted that the real scandal was not was as illegal but what is legal:

Direct costs of research grants receive meticulous scrutiny and are now routinely pared to the bone by study sections. Indirect costs, on the other hand...receive no review for scientific appropriateness. ...Whether or not [indirect cost] expenses were necessary for research does not enter in. Scientists do not participate in making these judgments. If a university administrator wants to install gold-plated benches in a laboratory not used for teaching, indirect costs will pay for them.

This is a battle that has not gone away and is heated on almost every campus. Many university administrators are convinced that research is actually costing the university rather than enriching it and researchers are convinced that they are being “ripped off” by administrators who want control of money they had no role in securing (Koopmanschap and Rutten, 1996; Bhattacharjee, 2007).

The Disaster Winds Down

While it is not clear exactly when Stanford’s adverse effects had diminished to the point that the disaster could be said to have been behind it, October 18 1994 is an important marker inasmuch as that was the time at which the federal government announced officially that it had no further claims against Stanford in connection with indirect costs reimbursement submissions. Under final terms of the settlement reached between Stanford and ONR, the university agreed to pay \$1.2 million for final adjustments.

Stanford was for many years held hostage to the Biddle civil suit and its attorneys were active on that suit from 1991 until its final resolution in 1998. It was until April, 1999, when the U.S. Supreme Court rejected Biddle’s appeals

petition, that the legal aspects of the case were finally concluded. As new President Gerhard Casper noted in the *Stanford Daily*, “We trust that this (appeals rejection) truly puts an end to this matter.”

Aftermath

In a 2005 article entitled “The Ghosts of Stanford,” *Chronicle of Higher Education* reporter Jeffrey Brainard (2005) interviewed a number of university administrators concerning the aftermath of the Stanford Yacht scandal. Almost all those interviewed agreed on two things. First, they felt that the number of “unfunded federal mandates” for research were every-increasing but not the resources available through indirect costs. Indeed, many universities failed to charge the full costs legally available to them, sometimes to provide a competitive edge to researchers and sometimes just to err on the side of caution. No one seems to be seriously petitioning for higher overhead rates and for sweeping changes in the research administrative laws and regulations. In part this is due a view that such actions might backfire. One director of sponsored research noted that many of the Congressional staff members who were there more than 16 years ago still remember the Stanford case and remain skeptical about the pleadings of university research administrations.

Arguably many problems in university research administration are not pressed in part because of the visibility and impact of the Stanford Yacht case. In 2000, the Rand Corporation estimated that underpayments on indirect costs amounted to between \$700 million and \$1.5 billion for all institutions receiving federal research funds (as reported in Brainard, 2005). The average indirect cost rate for universities in 2006 was 51.8% about the same as in 1991, but with many

additional expenses included in research overhead (including stronger requirements for anti-terrorism and secure buildings). University administrators and faculty researchers continue to be pitted against one another.

Perhaps one of the most important implications of the Stanford Yacht case is that one of its major causes still is not being addressed- the distinctive means of financing U.S. university research through indirect cost reimbursement. There are few direct sources for federal research infrastructure, administrative staff, buildings, scientific equipment and maintenance. These are not often line items in budgets. To the extent money is available for these categories, it is either by special funds (e.g. science centers and cooperative agreements) or indirect costs. However, as one knowledgeable research administrator noted during the heat of the Stanford case, the current system has many similarities to filling out a Form 1040 on the personal income tax: “its like doing your income tax, you push it as far as you can” (Barinaga, p. 735). It is also like having your 1040 audited- the result is uncertain and strongly dependent on interpretations that are not easy to predict.

Conclusions: Implications for Implosive Organizational Disaster

In setting the stage for this analysis, I noted that a focus on the institutional- and organizational-setting provide analytical insights not easily obtained from micro-level analysis. I argued that implosive disasters are sometimes the result of organizational and institutional “time bombs” that are set to go off and that it often and the focal organization or leader affected for all intents and purposes random. The Stanford yacht error was one mistake among millions of accounting transactions and for all accounts a human error rather

than an instance of corruption. It was a mistake made by a mid-level research administrator without the knowledge of the university president or other higher officials and with no reasonable argument that they were asleep at the wheel. The error was compounded by the coming to light of many other charges despite their being legal, brought bad publicity and gave the appearance of out of touch administrators living large on the games they played with federal tax dollars. It is important to note, though, that the practices employed by Stanford were “fair play” in terms of what had been negotiated with the federal overseers and that they were not much different than practices employed at many other research universities. One interpretation is that Stanford’s pre-1991 practices were at the eye of the storm because Paul Biddle happened to be assigned to Stanford. If he had been assigned to MIT, Michigan, or Harvard, the results might have been very similar.

None of this is to say that Stanford was blameless. Appearance of impropriety is important. Playing the game of ringing the last penny of reimbursement is just as dangerous as giving oneself the benefit of the doubt in all income tax deductions. The initial response to the brewing scandal was to be combative and to hide behind legal protections to the extent possible. However, the most important set of implications for implosive disaster is that it seems possible for organizations to assess potential vulnerability.

Based on the lessons from the Stanford Yacht case and, generally, from research administration, here are some hypotheses about vulnerabilities.

- 1. Organizations subject to multiple competing controllers are more vulnerable to implosion.* The fact that Stanford and all research universities

must concern themselves with the rules, expectations, and politics of their official negotiators, their auditors, their science funding agencies, the Government Accountability Office, various federal contracting agencies, and, most important, the U.S. Congress means that it is subject to potentially conflicting controls and that some controllers can gain by attacking those of others. That is a precarious position and puts universities in a heightened state of vulnerability to implosion.

2. When single actions of multiple persons in lower- and middle-level echelons can potentially lead to disaster, the organization is highly vulnerable.

Neither Stanford President Donald Kennedy nor other high level officials at the university had knowledge of nor should have had knowledge of detailed, individual accounting transactions pertaining to research administration. Those facts had no bearing on the implosive potential of research accounting.

3. The mighty provide satisfying targets for disaster. Surely no one doubts that the entire episode would have played out differently had the offending university been, say, University of Georgia rather than Stanford. In any arena in which the media may become involved (that is to say, any arena), celebrity rules. The image of patrician Stanford administrators misbehaving at a university named for a Robber Baron is irresistible.

4. Poor policies find organizational stooges. One of the major culprits in the so-called Stanford scandal is the system for supporting research through indirect cost reimbursement. This is (from a cross-national standpoint) and unusual system and one that has in many respects benefited universities. But that does not make it good policy. Even now, but certainly in 1991, it resulted in hundreds of tailor-made rules (MoU's) negotiated on many different bases by a

variety of individuals exercising great, probably excessive, discretion. But many standards (fairness, equity, clarity, and predictability) this is simply poor policy.

5. Closely-coupled outcomes from poorly-coupled policies lead to greater collateral damage. On the one hand, research administration policy is tailor-made, but, at the same time, most universities are subject to the same set of largely ill-defined rules. This produces heightened vulnerability throughout the system of universities and means that when one part of the system implodes, others are at risk. It is not accident that universities proceeded to give up on legal reimbursement claims after the Stanford experience; more important, universities are even now affected by the outcomes at one university such that they often exert excessive research administration controls, well beyond requirements, and they continue to undercharge for indirect costs while remaining afraid to redress the increasing costs of research administration.

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Endnotes

¹ This description of research accounting draws extensively from McPherson and colleagues (1996) and Geiger and Feller (1991).

² Authorized by the 1986 False Claims Act (see 31 USC Secs. 3729 and 3730), the *qui tam* provisions allow private citizens to file civil suits to recover money defrauded from the U.S. Treasury and receive portion of the recovery as a reward.

³ Both members of Congress acknowledged that the letters were sent after Stanford officials had suggested to them the possibility of a conflict of interest. Both members attended Stanford.